PEDAL MANIA: 34 REVIEWS! • TAME IMPALA • SLAYER • JOHN McLAUGHLIN

OCTOBER 2015

PREMIER Guitar®

PG the relentless pursuit of tone

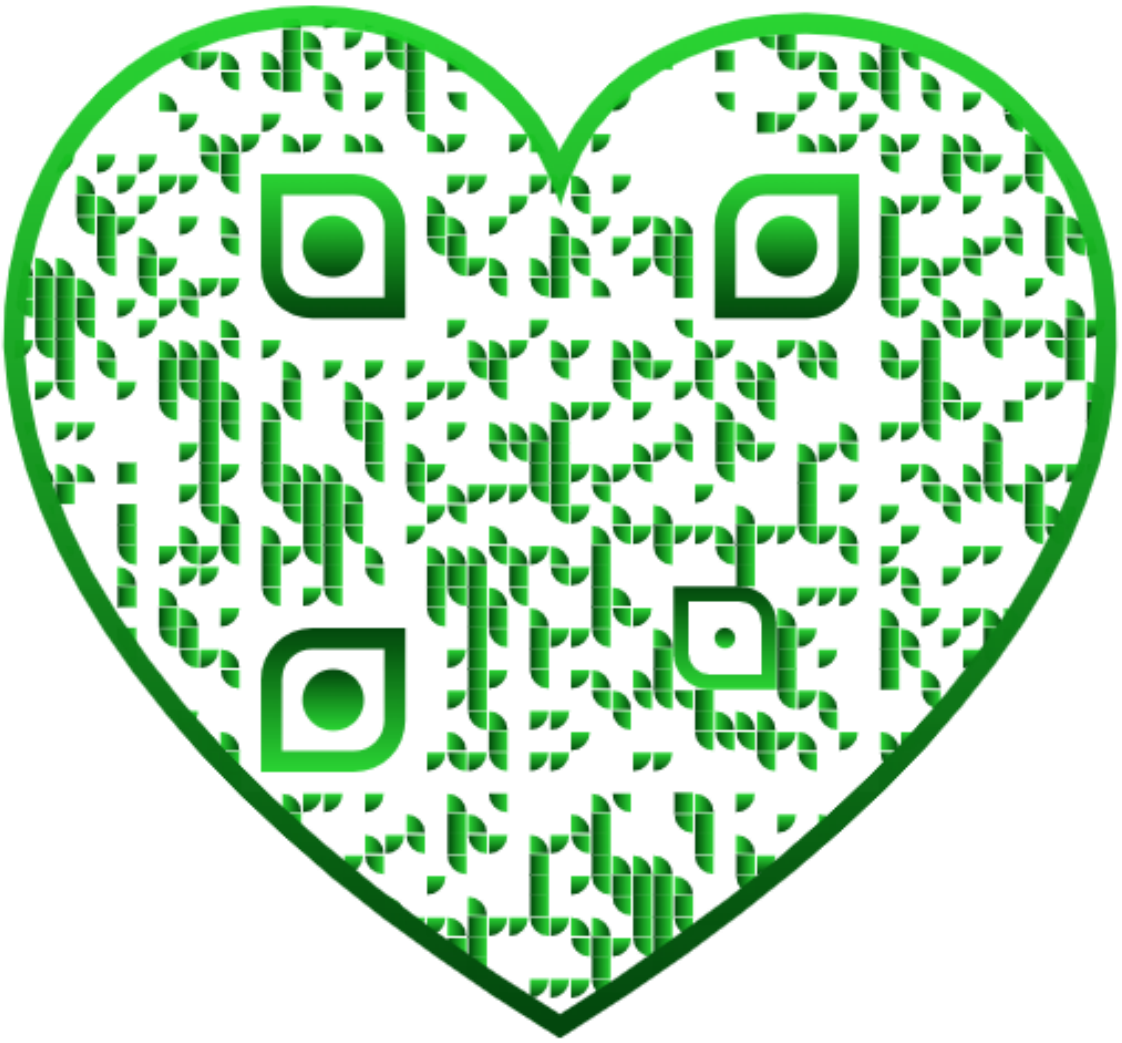
PREMIERGUITAR.COM

34 ★★★ STOMPS REVIEWED

PLUS!
TOMMY EMMANUEL,
SLIGHTLY STOOPID,
SOILWORK,
& REFUSED

$6.95US $6.95CAN
10
0 74470 22757 1

RIG RUNDOWNS
STEVE MORSE & IMAGINE DRAGONS



THIS IS THE SOUND

VINTAGE MODIFIED '68 CUSTOM GUITAR AMPLIFIERS

© 2015 Fender Musical Instruments Corporation. Fender®, Vibrolux®, Princeton®, Twin Reverb®, Deluxe Reverb®, Stratocatser®, Strat® and the distinctive headstock designs commonly found on Fender guitars ae are registered trademarks of FMIC. All rights reserved.

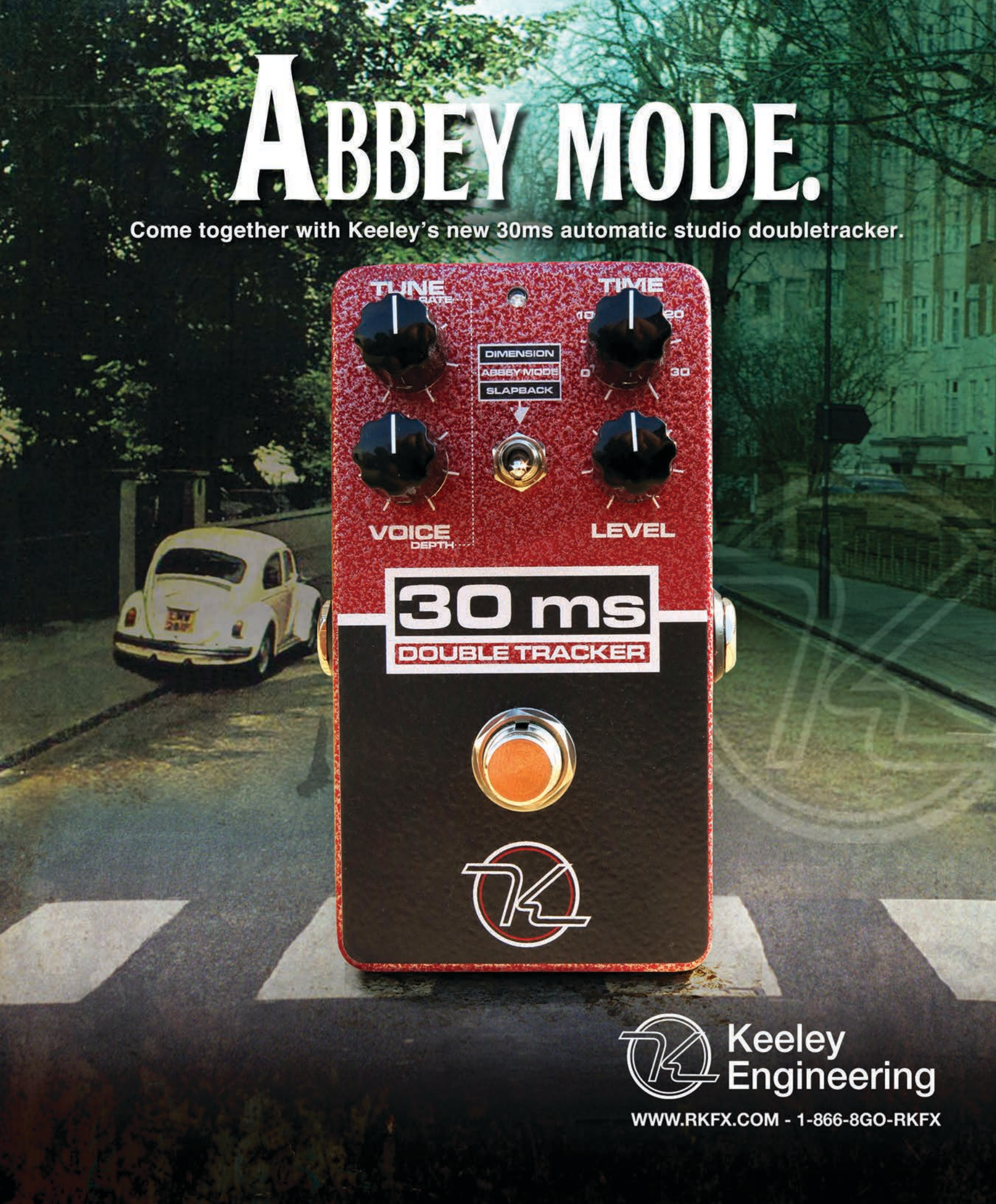
fender.com/68-custom

TWIN REVERB®, PRINCETON® REVERB,
DELUXE REVERB®, AND VIBROLUX® REVERB
DISTINCTLY ROCK 'N' ROLL

Fender

ABBEY MODE.

Come together with Keeley's new 30ms automatic studio doubletracker.



Keeley Engineering

WWW.RKFX.COM - 1-866-8GO-RKFX

Pigtronix FAT Philosopher

Pigtronix
Philosopher's Twin Germanium

Line 6 Helix

Dunlop CBM95
Cry Baby Mini Wah

JHS
Pulp 'N' Peel

JHS
The Kilt

BOSS DD-500

BOSS BD-2W
Blues Driver

MXR
Sub Machine

Way Huge
Saucy Box Overdrove

Orange Bax Bangeetar

GUITAR GALLERY SHOWS YOUR ACTUAL GUITAR

Sweetwater's online **Guitar Gallery** lets you check out our world-class inventory of guitars and basses in beautiful multiple-photo detail. Then, you can pick the exact guitar or bass you want by serial number! Visit **Sweetwater.com/guitargallery**.

55-POINT EVALUATION PROVIDES EXCEPTIONAL PLAYABILITY

Nearly every guitar and bass that we stock receives a detailed **55-point Evaluation** by our experts before it's shipped. We make sure it looks, sounds, and plays great right out of the box! Visit **Sweetwater.com/55-point** for more details.

Pro Audio ■ Recording ■ Mixers ■ Monitors ■ Microphones ■ Guitars ■ Keyboards ■ Drums ■ Live Sound

0% INTEREST FOR 24 MONTHS*

On purchases of select manufacturers' products made with your Sweetwater Musician's All Access Platinum Card between now and October 31, 2015 – 24 equal monthly payments required.

*Offer applies only to single-receipt qualifying purchases. No interest will be charged on promo purchase and equal monthly payments are required equal to initial promo purchase amount divided equally by the number of months in promo period until promo is paid in full. The equal monthly payment will be rounded to the next highest whole dollar and may be higher than the minimum payment that would be required if the purchase was a non-promotional purchase. Regular account terms apply to non-promotional purchases. For new accounts: Purchase APR is 29.99%; Minimum Interest Charge is $2. Existing cardholders should see their credit card agreement for their applicable terms. Subject to credit approval.

Classic to Boutique

Find Your Next Pedal at Sweetwater

Find Even More Pedals Online! Sweetwater.com

Pigtronix Echolution 2 Filter Pro

DigiTech Obscura Altered Delay

TC Electronic Hall of Fame

Leslie G Pedal Leslie Simulator

Eventide H9 Max

TC Electronic Viscous Vibe

Moog MF Flange

MXR Phase 99

"SWEETWATER ALWAYS EXCEEDS MY EXPECTATIONS IN SALES, CUSTOMER SERVICE, AND KNOWLEDGE ON THE GEAR BEING SOLD TO ME."

Hector from Kissimmee, FL

Knowledgeable Staff, Top Brands, and Competitive Prices That's the Sweetwater Difference!

(800) 222-4700
Sweetwater.com

Sweetwater®
Music Instruments & Pro Audio

2-YEAR WARRANTY**
Total Confidence Coverage™ Warranty

FREE PRO ADVICE
We're here to help! Call today!

FAST, FREE SHIPPING
On most orders, with no minimum purchase!

**Please note: Apple products are excluded from this warranty, and other restrictions may apply. Please visit Sweetwater.com/warranty for complete details.

The Fishman of Acoustic Preamps

Our new Platinum Pro EQ and Platinum Stage universal preamps are designed for players looking for a pro-quality preamp/DI for their acoustic guitar, violin, cello, bass, resonator guitar, banjo, mandolin or other acoustic instruments that may be too small or too precious to have an onboard preamp.

Class-A analog circuitry makes it a preamp… Great sound makes it a Fishman.

Platinum Series Preamps from Fishman – For over 30 years, the world's #1 maker of acoustic instrument pickups & preamps.

FISHMAN®

Inspired Performance Technology™

Kevin Michael

CARBON FIBER

TOURING GUITAR

Carbon fiber guitars have never sounded this good.

The Kevin Michael™ Touring Guitar combines the guitar making expertise of luthier Matt McPherson with state of the art carbon fiber body materials and bracing systems that have been fine-tuned to create levels of tonal warmth and dynamic range never before heard from a carbon fiber instrument.

Find out more at: McPhersonGuitars.com

WE FOUND THE TONE INSIDE YOUR HEAD

PRO GUITAR SHOP
PDX P ORE

Custom-Built for ProGuitarShop.com

PREMIERGuitar

Publisher Jon Levy

EDITORIAL

Chief Content Officer Shawn Hammond
Managing Editor Tessa Jeffers
Senior Editor Andy Ellis
Senior Editor Joe Gore
Gear Editor Charles Saufley
Art Director Meghan Molumby
Associate Editor Chris Kies
Associate Editor Rich Osweiler
Associate Editor Jason Shadrick
Nashville Correspondent John Bohlinger
Nashville Video Editor Perry Bean
Digital Designer Shayna Blackmon
Photo Editor Kristen Berry
Intern Laura Kottke

PRODUCTION & OPERATIONS

Operations Manager Shannon Burmeister
Circulation Manager Lois Stodola
Production Coordinator Luke Viertel

SALES/MARKETING

Advertising Director Brett Petrusek
Advertising Director Dave Westin
Marketing Manager Matt Roberts
Director of Marketing Colton Wedeking

GEARHEAD COMMUNICATIONS, LLC

Chairman Peter F. Sprague
President Patricia A. Sprague
Managing Director Gary Ciocci

WEBSITES

Our Portal: premierguitar.com
Our Online Magazine: digital.premierguitar.com

The information and advertising set forth herein has been obtained from sources believed to be Gearhead Communications, L.L.C., however, does not warrant complete accuracy of such information and assumes no responsibility for any consequences arising from the use thereof or reliance thereon. Publisher reserves the right to reject or cancel any advertisement or space reservation at any time without notice. Publisher shall not be liable for any costs or damages if for any reason it fails to publish an advertisement. This publication may not be reproduced, in whole or in part, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopied, recorded, or otherwise, without the prior written permission of the publisher.

Premier Guitar [ISSN 1945-077X (print) ISSN 1945-0788 (online)] is published monthly. **SUBSCRIPTION RATES:** $24.95 (12 issues), $39.95 (24 issues) Call for Canada, Mexico and foreign subscription rates 877-704-4327; Copyright ©2015. All Rights Reserved. Reproduction in whole or in part without written permission is prohibited. Premier Guitar is a publication of Gearhead Communications, L.L.C. **CUSTOMER SERVICE:** lois@premierguitar.com.

PREMIER GUITAR (USPS 025-017)
Volume 20, Issue 10
Published monthly by:
Gearhead Communications, LLC
Three Research Center
Marion, IA 52302
Phone number: 877-704-4327 • Fax: 319-447-5599

Periodical Postage Rate paid at Marion, IA 52302 and at Additional Mailing Offices

POSTMASTER: Please send address changes to: Gearhead Communications, LLC, Three Research Center, Marion, IA 52302

premierguitar.com
info@premierguitar.com

Distributed to the music trade by Hal Leonard Corporation.

Sole mates.

Want to step up your game? Get your hands (and feet) on all the hottest Strymon pedals. Visit Make'n Music.

Get 6 Chances to Win a Strymon Timeline.

Six Pedals for Six Months.
visit: **makenmusic.com/strymon** #SIX4SIX

make'n music®

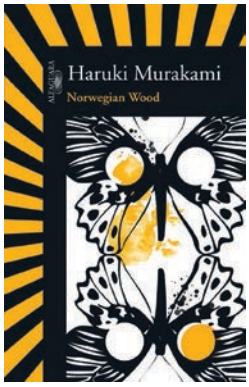
780 W Frontage Rd
Northfield, IL 60093
www.makenmusic.com
312-455-1970

Make'n Music is a registered trademark of Make'n Music, LLC. • Established 1973

The System vs. the Dignity of the Soul

BY SHAWN HAMMOND

@PG_shawnh



A couple of years ago, Mike, my best friend from back home in SLC, recommended I check out Haruki Murakami's novel *1Q84*. Little did I know it would change my life.

Murakami's native Japanese protagonists invariably ignore their own culture in favor of Western. They're always reading heady American and British novels and listening to and analyzing records by the likes of Miles Davis, Haydn, Ray Charles, and Talking Heads. (Murakami's own vinyl collection tops 10,000 LPs—mostly classical and American jazz and classic rock.) Even so, he's huge in Japan. But not *just* there—his work has been translated into 50+ languages and his 13 novels have sold millions upon millions worldwide.

So who cares—this is an f-ing guitar magazine, right? I care because Murakami is a badass—and a one-of-a-kind genius. For starters, his epic novels are the literary equivalent of an all-day concert featuring the Stones, Beethoven, Billie Holiday, Slayer, astrophysicist Neil deGrasse Tyson, and a grizzled World War II vet's spoken-word performance. They're equal parts realism, surrealism, science fiction, horror/thriller, fantasy, erotica, and historical esoterica. There's interdimensional travel via magic wells, radical communitarian cults, tiny people constructing dire alternate realities, a cat-murdering freak who dresses like the Johnnie Walker Scotch whiskey mascot, and a sexy assassin who takes out sexual predators.

Yeah, I know it sounds like the mad pecking of a coked-up pervert. But it's bloody brilliant. The writing is beautiful and simple and sometimes shocking. Seemingly random patches of life-fabric are slowly woven together in a captivatingly existential tale that can arouse even as it brings you to tears.

After three Murakami novels, I needed another fix. I almost passed up *Norwegian Wood,* a realistic love story that departs from his usual genre-grab-bag approach. It was like discovering your favorite post-hardcore band's old unplugged album. They probably pulled it off okay—but will I want to listen to it?

The answer: *Oh my god—yes!* This master of crazy-ass fiction penned one of the most poignant stories about the complexities of love that I've ever encountered. A tale full of tragedy, risqué humor, soul searching, sensuality, loyalty, and sacrifice (and yes, "Norwegian Wood" and many other Fab Four tunes played on flattop by a flirty woman in a sanatorium). I read about Murakami the man afterward, and what I found is that he's possibly more awesome as a human being than as a spinner of inimitable prose.

In 2009, he went to Jerusalem to accept a prestigious book award, and in that corner of the world where any public figure would walk on eggshells, Murakami didn't shrink. Perhaps sensing the pressure, he spoke out in metaphor as only he can: "Between a high, solid wall and an egg that breaks against it," he wrote in the Middle Eastern news outlet *Haaretz*, "I will always stand on the side of the egg."

These "walls" encountered by all humans, with our "unique, irreplaceable soul enclosed in a fragile shell," Murakami explained, are "The System … [which] is supposed to protect us, but sometimes takes on a life of its own…." He continued:

> I have only one reason to write novels, and that is to bring the dignity of the individual soul to the surface and shine a light upon it. The purpose of a story is to sound an alarm, to keep a light trained on The System in order to prevent it from tangling our souls in its web and demeaning them.

Few of us probably think of it this way, but I'd argue this celebration of soul and dignity is what we all strive for with our music—the seemingly random chord progressions, riffs, leads, and lyrics we try to patch together into something bigger that stirs the soul. And that's no crazy-ass fiction.

Shine on, my friends.

Shawn Hammond
Chief Content Officer
shawn@premierguitar.com

Ed Sheeran X SIGNATURE EDITION

Contact your Authorized Martin Dealer to order yours today!

Introducing Ed Sheeran X Signature Edition | Designed in collaboration with award-winning artist Ed Sheeran, this Signature Edition Little Martin® features platinum-selling album's logo inlayed in solid koa on a solid spruce wood top. For every guitar sold, all of Ed's proceeds will be donated to the East Anglia's Children's Hospices.

www.each.org.uk | edsheeran.com

Martin&Co
EST. 1833
D 35 TURNS 50
martinguitar.com

FEEDBACK LOOP

The Zonk Machine!

Hi *Premier Guitar* people,
Seeing so many pedalboards these days, I wanted to show you my "antique pedalboard" from 1967. It consisted of a Hornby Skewes Zonk Machine Fuzz Box, a footswitch from my 1964 Vox AC30, and my homemade guitar tuner. The tuner consisted of a tuning fork that, unfortunately, was in the key of F, and a microphone from a Wollensak tape recorder. That picked up the tuning fork pretty well. Anyway, that's what we used in the group, the Zonk Machine, my brother and I had when we lived in Germany (my father was in the Air Force) from 1965 till mid 1968.

—Earl Miller, Montross, Virginia

P.S. It was easier to use the organ to tune rather than my tuner.

A Timeless Talent

Shawn,
Nice obit for Chris Squire ["In Memoriam: Chris Squire 1948–2015," September 2015]. I'm a fellow BYU grad, played guitar in Synthesis in the early '80s. Spent a lot of time copying Steve Howe licks. Job well done, particularly across a generation.

—Scott Remy, via premierguitar.com

What's a Watt?

I've been a reader of your mag for many years now. I enjoy the mix of technical and player info. I especially enjoyed the Amp Issue and the article by Mark Gooday ["Beef. It's Watt's for Dinner," August 2015).

I'm an electrical engineer and it's always been a pet peeve of mine on the misuse of the electrical term "watt." I was delighted to see Mark define the term correctly for readers. The unit for electrical power is watt and it's an average value. The use of watts RMS is totally invalid and used incorrectly everywhere. RMS values of voltage and current are derived from average power. Bravo to Mark for his concise but informative article.

—Robert Davidge, Toronto, Canada

Hip-Hop Hooray

Fantastic article [Brent Paschke: Pharrell's Fretman," September 2015]! Really great insight into an artist who's figured out how to create and collaborate with arguably today's most inspirational producer. Paschke has a great perspective on gear but more importantly provides insight into the mindset you need to pull off this kind of gig.

—Brigadoon, via premierguitar.com

Twice in a Lifetime

The G4 Experience video really makes me wish I had the coin to attend. If Guthrie and the Aristocrats were this good, Satch and all the other pros contributing must have been at least equal ["Guthrie Govan: New Approaches," September 2015]. I wish this sort of thing happened when I was a kid. What a really fantastic opportunity for all those fortunate enough to be there. I hope things like this continue, because the opportunities to learn and make musical relationships in a setting like that seems to me to be a once-(or twice, maybe)-in-a-lifetime experience.

—Michael Hanby, via premierguitar.com

Keep those comments coming!

Please send your suggestions, gripes, comments, and good words directly to **info@premierguitar.com**.

Socialize with Us!

@premierguitar @OfficialCarvin mama like!

—@Lifeisgood919

@premierguitar is streaming the new Robert Cray album and it is every bit as awesome as you would expect.

—@rforziati

@premierguitar thank you so much! I was hoping that a guitar mag would finally pick up on @JasonIsbell and his music. #guitar

—@jamesonguitar

I often play from my butt, or like butt ["The Recording Guitarist: Are You Playing for the Song, or for Your Butt?", September 2015]. Not sure if that's quite the same thing.

—Michael Hunter

GLX-D GUITAR PEDAL WIRELESS SYSTEM

RECHARGE IN MINUTES PLAY FOR HOURS

EXCEPTIONAL DIGITAL AUDIO CLARITY + RUGGED METAL CONSTRUCTION

- Integrated Tuner (strobe and needle)
- Easy Setup and Seamless Operation
- Automatic Frequency Management
- Uses Lithium-Ion Rechargeable Batteries
- Up to 16 hours of Use from a Single Charge
- Operates in the 2.4 GHz Spectrum

SHURE.COM/AMERICAS

©2015 Shure Incorporated

SHURE®
LEGENDARY PERFORMANCE™

CONTENTS *October 2015*

37

Forgotten Heroes: Denny Walley
A Zappa sideman who pushed the limits within avant-garde rock.

141

Pedal Roundup
We poke 34 pedals fresh from the labs of stomp scientists.

ARTISTS

48

Slayer
Tom Araya, Kerry King, and Gary Holt carry the thrash torch.

61

Tame Impala
Kevin Parker discusses the unorthodox guitar synth on *Currents*.

73

Tommy Emmanuel
On his new album, playing with Chet, and finding a guitar voice.

83

Refused
Kristofer Steen talks about *killing* it on the long-awaited reunion.

97

Slightly Stoopid
The founding duo discusses 20 years of move and groove.

115

John McLaughlin
Black Light marks six decades of progressive, electric-inspired fusion.

127

Soilwork
The Swedish veterans return with a revised lineup and new shreds.

***"After hearing the guitar on blues, and hearing men sing with passion—men who weren't afraid to be passionate* and *sensitive—I said, 'Damn. I didn't know men could do* that.'"**

—Denny Walley, p. 37

p. 141

REVIEWS

212 **Asher** GT-3

214 **Guild** M-140

216 **Schecter** Diamond-P Plus

Above: Photo by Andy Ellis

Musician's Friend
PRIVATE RESERVE

We meticulously inspect every instrument—in both appearance and functionality—before adding it to our collection, so you're always choosing from the best.

Premium-Quality Guitars
- Vast, unparalleled selection
- Limited edition and collectible models
- Carefully humidified facility

Shop by Serial Number
- Choose the exact instrument you see online
- Explore the nuances of each guitar
- Compare sound, appearance and weight

Expert Guidance and Setup
- Trusted staff of Guitar Advisors
- In-hand tone reports and additional photos
- Side-by-side comparisons over the phone

866-926-1923 **musiciansfriend.com/privatereserve**

On the Cover:
Stained-glass-and-mixed-media pedal sculpture by Laura Kottke.

CONTENTS *October 2015*

"In one interview, Beck spoke dismissively about using compression, and in my fealty, I swore it off as well. No setup I'd construct for years would have a compressor."
—Philippe Herndon, State of the Stomp, p. 134

22 Gear Radar
25 Opening Notes
210 Tools for the Task
218 Staff Picks
238 Esoterica Electrica
240 Last Call

GEAR

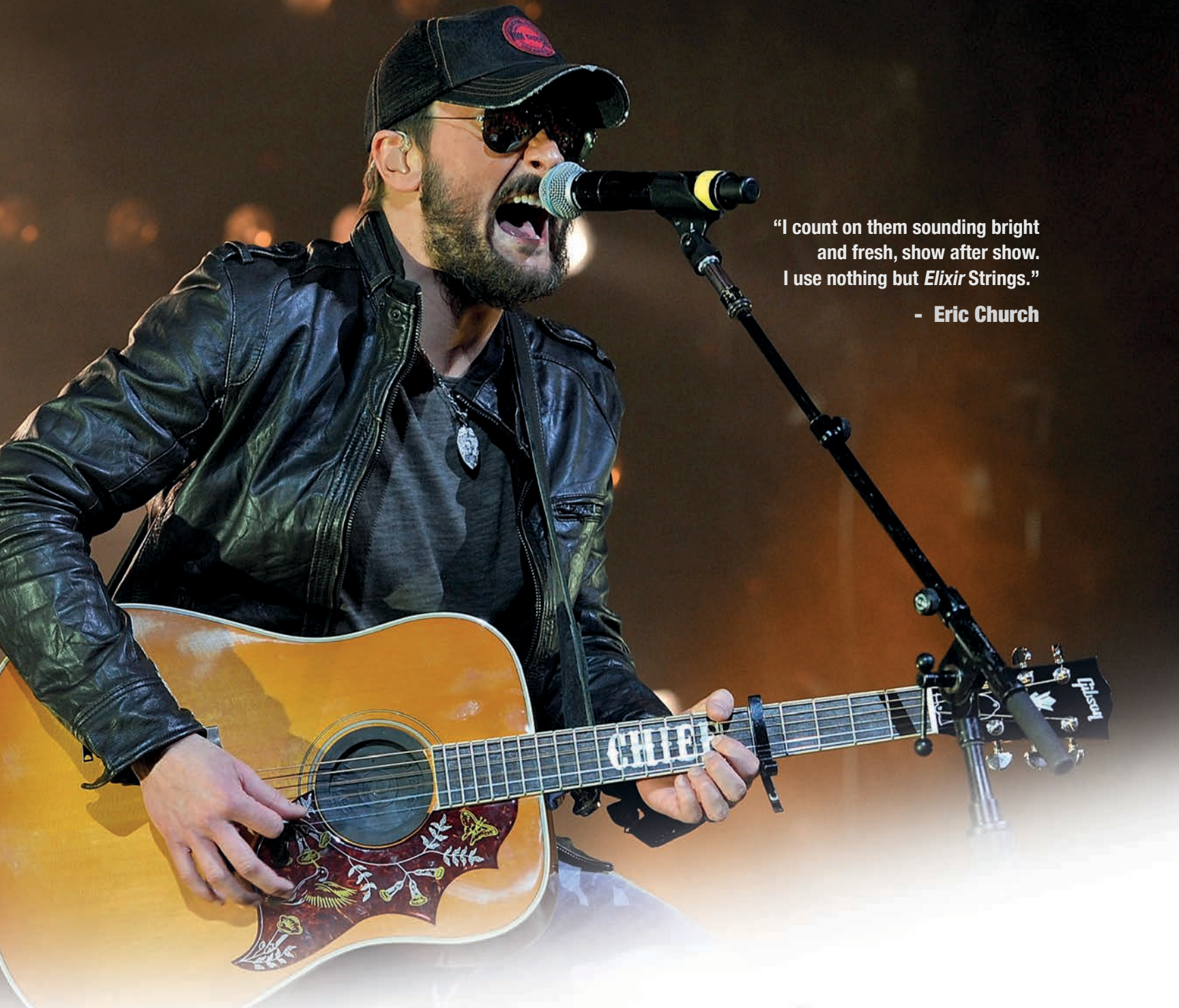
30 Rig Rundowns
34 Vintage Vault
46 Trash or Treasure
58 Tone Tips

HOW-TO

94 Acoustic Soundboard
108 The Recording Guitarist
112 Guitar Shop 101
122 On Bass
124 Bass Bench
134 State of the Stomp
136 Mod Garage
138 Ask Amp Man

p. 34

Above: Photo by Debi Del Grande **Left:** Photo by Tim Mullally



"I count on them sounding bright and fresh, show after show. I use nothing but *Elixir* Strings."

- Eric Church

Elixir® Acoustic Guitar Strings

Great Tone - Long Life

Guitarists choose *Elixir* Strings **Acoustic Phosphor Bronze** for their distinctive tone full of warmth and sparkle, together with the extended tone life that they have come to expect from *Elixir* Strings.

Elixir Strings is the only brand to coat the entire string, protecting not only the outer string surface but also the gaps between the windings. As a result, *Elixir* Strings retain their tone longer than any other string, uncoated or coated.*

Eric Church plays *Elixir* Strings Acoustic Phosphor Bronze

www.elixirstrings.com/phosbronze

Elixir Strings player survey

GORE, ELIXIR, NANOWEB, POLYWEB, GREAT TONE · LONG LIFE, "e" icon, and other designs are trademarks of W. L. Gore & Associates. ©2015 W. L. Gore & Associates, Inc.

ELX-384-R2-ADV-US-JUN15

ONLY ON PremierGuitar.com...

Your guide to the latest stories, reviews, videos, and lesson.

FEATURED

The Machine

When we talked to **Dave Rawlings** in August, he was recovering from an atrocious spider bite—seriously—but don't worry, things aren't looking too shabby for Americana's darling and his musical partner **Gillian Welch**. On top of new music on the way this fall, the pair is being honored with a prestigious Lifetime Achievement in Songwriting Award by the Americana Music Association. Head online to learn about the intriguing new **Dave Rawlings Machine** album, *Nashville Obsolete*, which features Rawlings and Welch on lead vocals and guitar, **Paul Kowert** (Punch Brothers) on bass, and **Willie Watson** on vocals and guitar. Read this and more at **premierguitar.com/oct2015**.

LESSONS

Access all of our lessons online, for free, with streaming audio and downloadable, printable notation PDFs.

FRETBOARD WORKSHOP:
Major Blues with Minor Moves
By Lyle Brewer

FUTURE ROCK:
Speeding Down the Modal Interchange Highway
By Nili Brosh

WHAT BOHLINGER PLAYS:
Easy, Jazz-ish Passing Chords
By John Bohlinger

WORLD GONE SHRED:
Kora Power!
By Jared Meeker

NEW FOOTAGE

For Your Feet

Yes friends, it's the pedal issue. We know you've been waiting for it, we know you love every minute of it, and we *know* you're not even close to getting tired of hearing about the world of effects. So after you've digested the dozens of pedal reviews starting on p. 141, head online to see the video explorations of featured stomps from **Electro-Harmonix**, **Wampler**, **ISP Technologies**, **Walrus**, **Korg**, **MXR**, **Ampeg**, **Moog**, **Stomp Under Foot**, and **Seymour Duncan**. It's free and fun for the whole family!

Above Left: Photo by Henry Diltz

GUITARDOM'S TOP TWEETS

Too often: New artist. 1st album: Unique, quirky, specific, personal, great. 2nd album: suddenly they sound just like the other top hits.

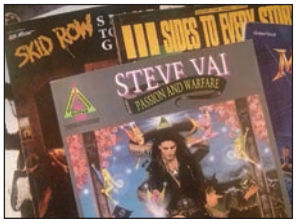
—@DanWilsonMusic

Live Nation's monopoly of the touring industry won't be complete until it merges with Sabra Dipping Company. #butifyouhummusafewbars

—@christhile

Maybe the new wilco record is the album we were waiting for REM to make.

—@wdana



Tidying up my book shelves. These are from my teens! @stevevai @Megadeth @ExtremeBand @bryanadams @OfficialSkidRow

—@HermanLi

After 10 years missing this showed up at summer breeze! The guitar from the pull harder video is back !

—@coreytrivium

KILLER TONE

PRO GUITAR SHOP
PDX P ORE

Available Exclusivly at ProGuitarShop.com

GEAR RADAR

New products on the horizon.

1
THORPYFX
Muffroom Cloud Fuzz

Can anyone can build a Muff-style fuzz that beats the 1971 "triangle' version? This UK-based company claims to have done so with their four-knob, vintage-voiced fuzz box.

$206 street

thorpyfx.com

2
CARL MARTIN
Pro Power 2

Clean, dependable power is essential for your pedalboard. The latest from Carl Martin provides it via eight isolated outputs that can run at either 9V or 12V.

$172 street

carlmartin.com

3
PORT CITY AMPS
Merino

The hand-wired 10-watt combo features two 6V6GT tubes, a 5Y3 rectifier tube, three ECC83 preamp tubes, and a simple master tone/master volume control layout.

$1,650 MSRP

portcityamps.com

4
SINGULAR SOUND
BeatBuddy Mini

Considerably smaller than its counterpart, this scaled-down drum machine pedal boasts many of the same features, including 16-bit sound, footswitch compatibility, and 100 built-in songs.

$149 street

mybeatbuddy.com

5
TYYSTER GUITARS
Pelti

Designed for roots guitarists, this 6-string features a sheet-metal body, maple neck, matched custom Tyyster humbuckers, and a body pickup to capture resonator-like sounds and metallic vibes.

$4,000 MSRP

tyysterguitars.com

6

7

8

9

10

6
MBS EFFECTS
Parallel Universe Bass Blender
The latest effort from the Argentinean company is a "mixer pedal." You can insert other pedals in its effect loop, and then adjust the balance between dry and effected tone.
$90 street
mbseffects.com

7
PRS
SE Custom 22 Semi-Hollow
Expanding PRS's ever-popular SE series, the latest addition combines the classic lines of a Custom 22 with the airy tone of a semi-hollow.
$729 street
prsguitars.com

8
PIVOT-ALL CABLES
PV-A Pivoting Plug
Made with high-quality Mogami cable and silver solder, these plugs and cables feature a 1/4" shaft that can be continuously rotated over a 180-degree arc, making tight connections easy.
$20 street
godlyke.com

9
SOURCE AUDIO
Lunar Phaser
The latest addition to the One series features a Uni-Vibe-style effect and 4- and 8-stage phasing. It's compatible with Source Audio's Neuro mobile app.
$149 street
sourceaudio.net

10
AMPTWEAKER
TightFuzz Pro
The latest feature-packed pedal from James Brown contains three-band EQ, both germanium and silicon diodes, and a trio of effect loops. The dual-boost system lets you control fuzz and volume independently.
$330 street
amptweaker.com

READER GUITAR OF THE MONTH

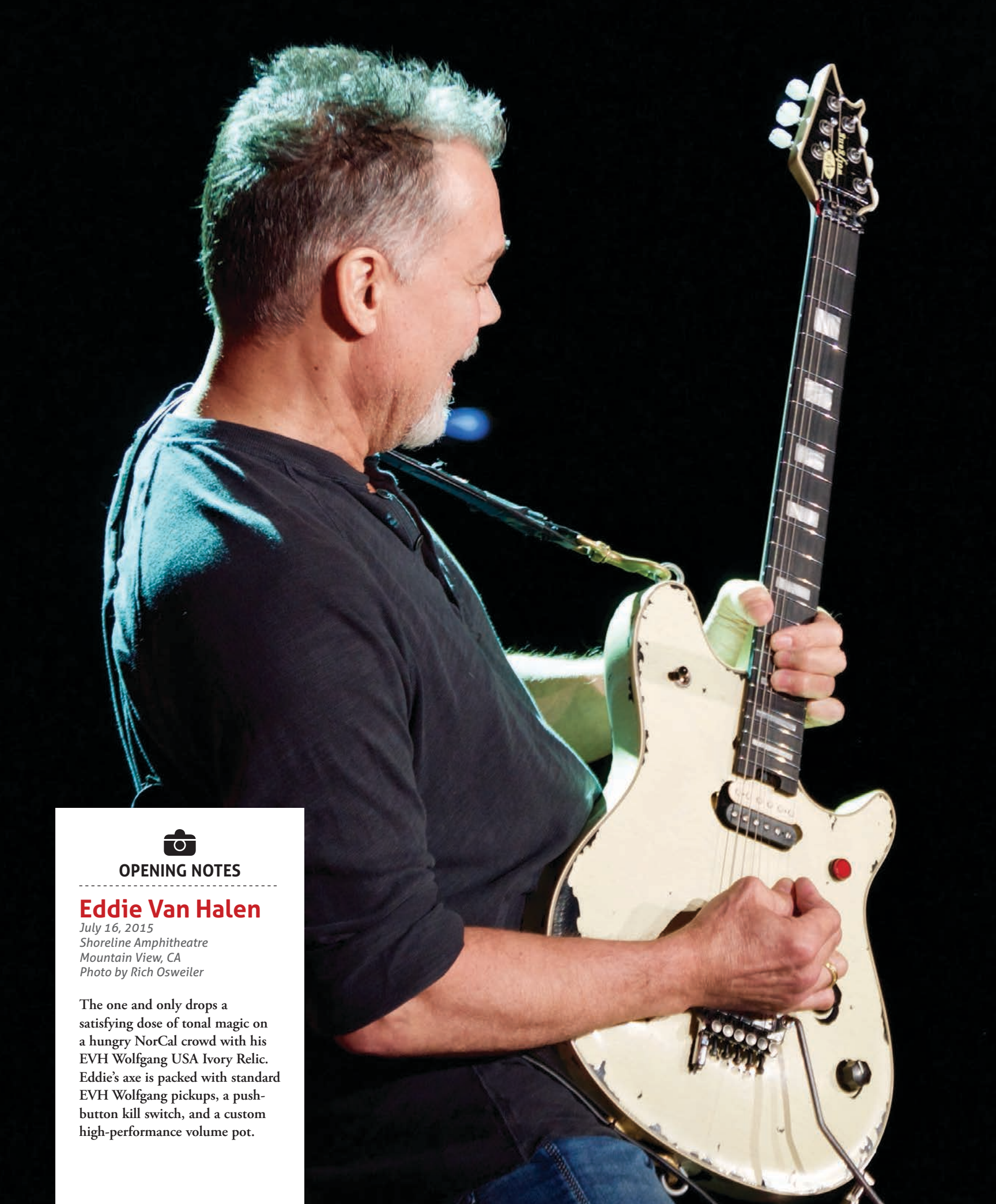
Name: Jeroen Sevink
Location: The Netherlands
Guitar: Custom-modded Japanese Jackson Explorer

Jeroen Sevink has experimented with guitars his whole life. "I call this sweet guitar Industrial Steampunk-style," he says. "It still has its standard neck, which I think is amazing, so I left it as-is. But that's about all that's standard."

All of the electronics were seriously replaced with the help of an electrician friend. "The front pup is now a Sustainiac," says Sevink. "It's very, very sensitive to interference—a sheer drama to build into your guitar. It's like having a built-in EBow—fantastic!"

Sevink developed severe sleep apnea a few years ago and felt too run-down to play music. "I had to stop with just about all my bands," he recalls. "I felt I might as well be dead if I couldn't make music anymore." For a while he tried sleeping with a continuous-air-pressure machine. "After trying a million different masks, I gave up," he says. "I decided I'd rather live with the illusion that I was sleeping well then be kept awake by this Borg-like contraption meant to make me sleep better."

But that's why this guitar has so much emotional value for Sevink. "To make a long story short," he says, "in building this guitar, I've used various parts of the sleep apnea equipment I gathered over the years. This guitar represents saying goodbye to a lesser period in my life, and reminds me how I retook the wheel to rearrange my life so I could return to doing what I love most: making music."



OPENING NOTES

Eddie Van Halen

July 16, 2015
Shoreline Amphitheatre
Mountain View, CA
Photo by Rich Osweiler

The one and only drops a satisfying dose of tonal magic on a hungry NorCal crowd with his EVH Wolfgang USA Ivory Relic. Eddie's axe is packed with standard EVH Wolfgang pickups, a push-button kill switch, and a custom high-performance volume pot.

OPENING NOTES

Donita Sparks

July 16, 2015
The Fonda Theatre
Los Angeles, CA
Photo by Debi Del Grande

The L7 co-founder and riot-grrrl influencer lays down the heavy with her No. 1, a Gibson 120th Anniversary model Flying V that she's outfitted with a Kahler trem bar. Long associated with Vs, Sparks digs her newer model "because it's a couple of pounds lighter than my other Gibson and Epiphone Flying Vs."

OPENING NOTES

Jesse Lacey

August 2, 2015
Parc Jean-Drapeau
Montreal, Canada
Photo by Darren Boucher

The Brand New frontman brings it to a sold-out Osheaga Festival crowd with one of two go-to early-2000s Fender American Vintage '62 Jazzmasters. Fender's Custom Shop painted the headstock to match the body, and Lacey (who spray painted the pup covers) has since replaced the bridge pickup with a JM-90 custom wound by Mick Brierley.

OPENING NOTES

Brent Mason

June 11, 2015
Cannery Ballroom
Nashville, TN
Photo by Andy Ellis

The Grammy winner and session ace takes the stage in Nashville with his 1980s Fender Road Worn Telecaster, recently decked out with a Joe Glaser B-Bender. "It has a great sound," Mason tells *PG*, "and it goes to prove that you can run across great guitars that aren't collectible vintage and the same price as someone's new car."

variac
off
on
mode
tight
full
mellow
pre eq
b1
b2
n
structure
101
20th
100
volume
treble
middle
bass
gain
0
+
0
+
boost
on
Ecstasy™
ECSTASY RED
Bogner
reinhold Bogner in red. bogneramplification.com

Steve Morse

DEEP PURPLE

FACTOID
Morse has worn out 10 sets of frets on the No. 1 signature model guitar he's been playing since 1986.

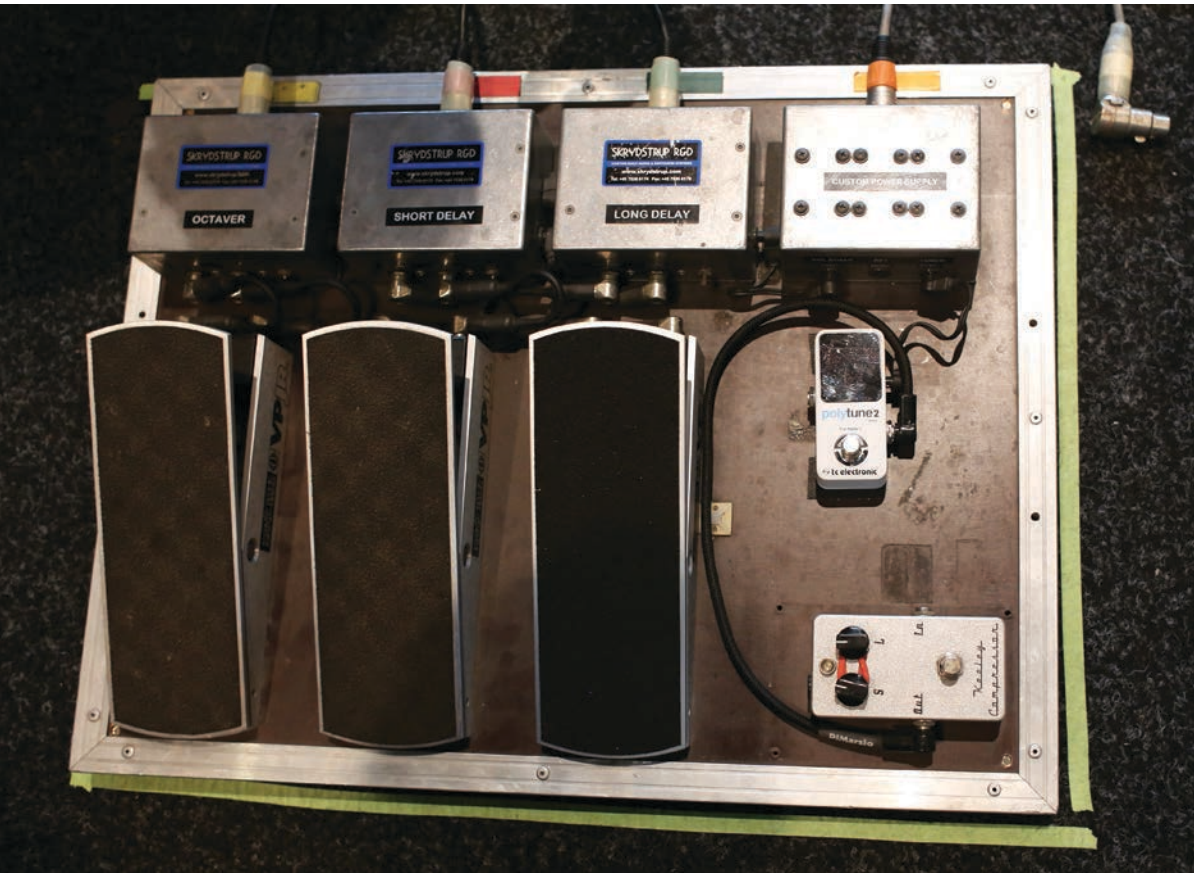
Tessa Jeffers chatted with the man of many bands, Deep Purple guitarist Steve Morse, just before the band performed at Nashville's legendary Ryman Auditorium.

GUITARS

Top: Morse has a boat full of signature axes, but it all started with the Ernie Ball Music Man that he's been playing since he designed it in 1986—this guitar remains his No. 1 favorite guitar of all time. Morse modeled it after a Frankenstein Telecaster that he made from both Fender and Gibson parts early in his career.

Bottom: Morse designed his second wave signature model 20 years after the first, hence the name Ernie Ball Music Man SM-Y2D. It has a flame-maple top, and he favors this Y2D with a red and purple tinted finish and Floyd Rose while playing with Deep Purple on tunes like "Smoke on the Water." The Y2D has one less single-coil than the first generation Steve Morse signature model, making for an HSH configuration with a multi-pull switch for an option to use the humbuckers together.

WATCH A RIG RUNDOWN of Deep Purple online at premierguitar.com/oct2015



AMPS

The Steve Morse Signature Special is a 100-watt Engl head that Morse controls via MIDI footswitch for 3-channel selection, gain tweaking, and nuanced midrange tonal shifts on the specialty third channel. Morse describes Channel 1 as "the most expensive clean amp you've ever heard. It sounds like cost is no object." Channel 2 is that "bread and butter distortion sound that everyone loves." And Channel 3 is a specialty channel with four midrange controls that shift centers and combine with a separate mixer at the end of the signal. "It's great for soloing," Morse says.

PEDALS

Morse keeps things streamlined with his custom pedalboard setup. A TC Electronic Hall of Fame Reverb is controlled through his MIDI switcher, and he uses three Ernie Ball VP Jr. volume pedals, one for a harmonizer effect (via a TC Electronic G-Major 2) while the other two control his signature TC Electronic Flashback Delay TonePrints. Morse also employs a Keeley Compressor for quirky Ritchie Blackmore tone.

Wayne Sermon

IMAGINE DRAGONS

FACTOID
Wayne has freakishly good hearing and notices when voltages are different from night to night.

Premier Guitar *hung with guitarist Wayne Sermon and tech Shane Johnson of Imagine Dragons before their sold-out show at the Bridgestone Arena in Nashville. Sermon showed off a bevy of golden guitars and vintage Vox amps.*

GUITARS

Top: Wayne Sermon plays several different BiLT guitars throughout the set. These offset beauties are highly customized with features Sermon specifically needs to create certain sounds from ID albums. His No. 1 is a gold-plated Volaré loaded with a pair of Lindy Fralin Twangmaster humbuckers.

Bottom: Sermon's BiLT Relevator is finished in shoreline gold and features both an MXR Carbon Copy and BiLT's own fuzz circuit built into the body along with a Sustainiac in the neck position. Sermon can control the parameters of the effects via a wealth of buttons, switches, and controls that are accessible on the front of the guitar. There's a Pedaltrain Volto on his strap that supplies power to the pedals via the stereo cable. He keeps this guitar tuned a half-step down from standard.

WATCH A RIG RUNDOWN of Imagine Dragons online at premierguitar.com/oct2015

AMPS

The backline for Sermon's chimey brand of pop-rock is full of classic British tones. His wet/dry/wet setup revolves around a quartet of vintage Vox AC30 amps—two from '64, a '66, and a '67. Each one is modded with a Top Boost Kit from Plexi Palace.

PEDALS

Middle: In order to keep things tight, Sermon's pedals are kept offstage in a rack. The first drawer contains an original silver Klon Centaur, Analog Man King of Tone, ISP Decimator II, Paul Cochrane Timmy, and a Refractor built by Aion Electronics. The whole shelf is powered by a Voodoo Lab Pedal Power 2 Plus power supply.

Bottom: The second drawer houses everything that's routed before the volume pedal. It includes an Electro-Harmonix POG 2, Voodoo Lab Micro Vibe, J. Rockett Mark Sampson Hightop, Wampler Ego Compressor, Electro-Harmonix Superego Synth Engine, and a Malekko Vibrato (which is in the effects loop of the Superego). All of the effects are run through a RJM Mini Effects Gizmo and powered by another Voodoo Lab Pedal Power 2 Plus.

Fender
JAGUAR
Fender

1972 Fender Jaguar

BY DAVE ROGERS, LAUN BRAITHWAITE, AND TIM MULLALLY

In 1962, Fender launched the Jaguar as its top electric guitar model. Its offset body shape continued the look of 1958's Jazzmaster, yet the Jaguar also boasted a handful of new features, such as a 24" scale, a 22-fret neck, and tall, narrow pickups with metal surrounds to decrease noise. The shorter scale—a departure from Fender's standard 25 1/2" scale—and high-output pickups were meant to attract guitarists who were used to Gibsons.

The Jaguar's other novel elements included on/off switches for the pickups and tone circuits, a lead/rhythm selector switch, separate volume and tone controls for both lead and rhythm settings, and a foam string mute attached to the bridge. While the Jaguar wasn't widely accepted by Gibson players, it did briefly become the guitar of choice for mid-'60s surf guitarists. After being discontinued in 1975, Jaguars eventually found a niche in the hands of alternative rockers.

The 1972 Jaguar showcased here has typical '70s features, such as the large black Fender logo and thick polyester finish. The neck binding and block inlays (standard by 1966) are black for this maple-neck version. The neck and custom color options of this guitar were a $44 up-charge in 1972.

The 1972 list price for a Jaguar with a maple neck and custom color was $495, plus $65 for the case. The current value for this example in excellent all-original condition is $3,500.

Towering behind the Jaguar is a 1968 Dual Showman Reverb amp. Released in 1960, the Showman was intended to be the "piggyback" version of the Twin with its four 6L6 power tubes. Reverb was added in 1968 to make it a counterpart to the Twin Reverb. This huge cabinet has two 15" JBL speakers and specially ordered tilt-back stand with wheels. The May 1969 list price for the Dual Showman Reverb top and bottom was $1,000. The stand was an extra $49.50. The amp's current value is $1,000.

Sources for this article include *Fender: The Sound Heard 'Round the World* by Richard R. Smith; *Fender: The Golden Age 1946-1970* by Martin Kelly, Terry Foster, and Paul Kelly; and *Fender Amps: The First Fifty Years* by John Teagle and John Sprung.

DAVE'S GUITAR SHOP

Dave Rogers' collection is tended by Laun Braithwaite and Tim Mullally and is on display at:
Dave's Guitar Shop
1227 Third Street South
La Crosse, WI 54601
davesguitar.com
Photos by Mullally and text by Braithwaite.

Opposite page: This '72 Jaguar's Lake Placid Blue finish and maple neck were offered by Fender as custom options.

Left: Got a stamp? A mail-in postcard seems quaint in today's mobile world, but in those heady days of rock and funk, it was the only way Fender could gather data on its customers.

At Chicago Music Exchange, we have an unbeatable selection of new and used boutique gear. The walls of our one-of-a-kind showroom are home to one-of-a-kind Fano, James Trussart, and Teye guitars, Victoria, Tone King, and Carr amps, and much, much more.

Fall for one in our incredible showroom or browse at chicagomusicexchange.com.

888-686-7872 | 3316 N LINCOLN AVENUE, CHICAGO IL 60657

DENNY WALLEY

Playing with Zappa and Beefheart, Denny Walley mastered a blues guitar style that pushed the limits of traditional form within avant-garde rock music.

BY TZVI GLUCKIN

Walley and his heavily modded Telecaster at a 1972 Geronimo Black recording session at famed Sound City Studios.

A smoke-shrouded Walley wields a Strat at a recent performance.

Denny Walley isn't a household name—but he should be. His exquisite slide work and powerful vocals are integral to classic Frank Zappa albums like *Bongo Fury*, *Joe's Garage*, *You Are What You Is*, and others. He had a similar role in Captain Beefheart's Magic Band. (His Beefheart alias was "Feelers Rebo.") He toured extensively with Beefheart, and his guitar appears on the often-bootlegged 1978 classic *Bat Chain Puller*. But Walley's work isn't limited to the esoteric or avant-garde. He spent years as a sideman immersed in soul, funk, R&B, and blues, and nearly hit the big time with the hard-rocking Geronimo Black.

But Walley's most important accomplishment may be his ability to straddle those dissimilar worlds. Regardless of context—be it far-out, contemporary, traditional, or mutant hybrid—Walley speaks in a unique voice. And that voice, whether quoting one of his heroes or interpreting the visions of a mad musical genius, helped redefine what the guitar can do.

The septuagenarian still does what he does best: straddle disparate styles, pay homage to his mentors, and forge ahead with his creative blend of traditional and not-so-traditional music. *Premier Guitar* spoke with Walley via Skype. Our conversation (plus archived interviews and many hours of classic performances) paints an illuminating picture of an important and underappreciated guitarist.

Beginnings

Denny Walley was born in Pennsylvania in 1944. His family moved to Brooklyn when he was a toddler and then to Lancaster, California, in the mid-1950s, when his father, an aircraft mechanic, was sent to work at Edwards Air Force Base. The move was a good one. "I was 12 going on 13, and we moved into the same housing development that Frank Zappa lived in," Walley says. "I became best friends with Frank's brother Bobby. We had a common interest in blues records—the early blues 45s—and Frank was a big collector. I would go over there and Frank would play those records."

Walley's first instrument was the accordion. He started lessons at age 7, but he says that ended when he discovered the blues: "After hearing the guitar on blues, and hearing men sing with passion—men who weren't afraid to be passionate *and* sensitive—I said, 'Damn. I didn't know men could *do* that.' The accordion went under the bed, never to be seen again." (Well, almost never: Walley played accordion on "Harry Irene" on Captain Beefheart's *Bat Chain Puller*.

Walley finished two years of high school in Lancaster before his father was transferred again. Back in New York—smitten with the blues and desperate for friends—he set up his speakers facing the street, cranked old blues records, and prayed for a kindred spirit. He was in luck. Another blues fan lived across the street. Walley fell in with the local blues hounds, and he and his new friends played along with records, trying to decode the music. Walley got his first guitar: a Silvertone Stratotone. "It was a single-cutaway sunburst with binding," he recalls. "I polished that thing every day. I slept with it. I played it until my fingers blew up like plums—there was no such thing as light-gauge strings back then."

Walley played his first gigs while still in high school, alongside bassist Tom Leavey (his future brother-in-law). They

01 - MINIFOOGER ANALOG EFFECTS - 07

All rights reserved to Moog Music Inc. on all text and graphics here within. Reserved Minifooger, Moog Trademarks.

Geronimo Black in 1973. (Front row, left to right: Bunk Gardner, Jimmy Carl Black, Tom Leavey, Denny Walley. Rear, left to right: Andy Cahan, Tjay Contrelli

continued after graduation, spending most of the 1960s performing at clubs in and around New York and touring nationally as the Detours. "I'd lost connection with the Zappas," says Walley. "The next time I saw Frank was when I was playing with the Detours in Greenwich Village. It was the same time that Frank was playing at the Garrick Theater. I went over and saw Bobby Zappa in the lobby. I told him I'd love to see Frank."

The Village at that time was an epicenter of late-'60s counterculture. The vibe was heavy, and Zappa was an established figure. Walley went to visit him still dressed for work with the Detours—tuxedo, cufflinks, pinky ring—in other words, clean-cut and square. He didn't look cool—and Zappa didn't even know he was a musician. "I went upstairs and saw Frank," Walley remembers. "He was with Allen Ginsberg, Tuli Kupferberg from the Fugs—all these deep thinkers. I walked in and said, 'Hey Frank, remember me?' Oh God, was that awkward."

In late 1969, Walley moved to Los Angeles and quickly found work. He replaced Al McKay—the future guitarist for Earth, Wind & Fire—as the guitarist in the Real Thing. That band played soul and R&B, working six nights a week as the house band at the Haunted House, a popular Hollywood nightclub. That led to studio work, gigs backing the Valentinos (the Womack Brothers) and gospel singer Andraé Crouch, and tours supporting such entertainers as Rosie Grier and Bill Cosby (as a member of Cosby's Badfoot Brown & the Bunions Bradford Funeral & Marching Band).

Geronimo Black

Meanwhile, Tom Leavey had moved to Los Angeles and joined Geronimo Black, the band drummer/vocalist Jimmy Carl Black assembled after Zappa disbanded the original Mothers of Invention. Geronimo Black needed a guitarist, and Leavey recommended Walley. "I met them and we clicked right away," Walley says. Geronimo Black was hard-rocking and hard-living. They signed with Universal Records, and their first album was produced by Keith Olsen, who would go on to produce Fleetwood Mac, the Grateful Dead, and many other artists. Walley played his ass off. Of note is his raunchy, wah-infected, blues riffage on "Low Ridin' Man," the opening track from the group's 1972 self-titled album debut—and a testament to the band's power, heavy rumble, and swagger.

But Geronimo Black was doomed from inception. "Russ Regan signed us," Walley recalls. "We had high hopes and the label did as well. We were wild, but Russ knew how to handle us. After about a month, Russ left Universal to head up another label. No one knew what to do with us—they were afraid of us. We had a few incidents: We might have been a bit drunk and sort of crashed a party for Elton John and proceeded to drink all the beer and eat a mountain of jumbo shrimp before being asked to leave. Shortly after that we were recording at a studio on the UNI lot. It seems a 'certain band' purloined a golf cart belonging to one of their major stars, and a drunken joyride resulted in the cart getting trashed. After that they wouldn't even let us on the property anymore. So we didn't last long."

After the group disbanded, Walley went back to work in L.A. He continued with blues, R&B, and soul acts, working with King Cotton, the Kingpins, and others. Near the end of 1974, Jim "Motorhead" Sherwood—another old friend from Lancaster and a longtime Zappa associate—came to visit. "Motorhead said Frank was looking for a slide guitar player," Walley remembers. "He told Frank about me. Frank had no idea I played because when he knew me in high school, I wasn't playing yet. So Frank says, 'Tell him to come on by tomorrow.'"

Zappa Round One

Zappa was preparing for the *Bongo Fury* tour and subsequent album. The project was a collaboration with Captain Beefheart (Don Van Vliet), another Lancaster alum. Why was this small town such an avant-garde breeding ground? "I think something flew very low over Lancaster," says Walley. "They were doing a lot of experimentation out at Edwards Air Force Base."

Slide guitar was an obvious timbre choice for a Zappa lineup featuring Beefheart. It conjured serious blues mojo and complemented Beefheart's blues-influenced style. But Walley hadn't seen Zappa in years, and by 1974, Zappa was an institution. Walley was ready for his audition, but nervous. "I walked in the door and could've dropped to my knees," he says. "George Duke was on keyboards. Tom Fowler was the bass player. Chester Thompson was behind the drums, plus

Napoleon Murphy Brock and Frank. That was what I walked into."

The audition couldn't have gone better. "Frank introduced me to everyone and it was real relaxed. He was so disarming. Frank called 'Advance Romance.' I'd never heard it before, but it turned out they played it in A, and I had my guitar tuned to open A. As soon as I heard the beginning I started to shake, because I knew that this was so in my wheelhouse. It was like Frank wrote it for me so that I would pass the test. Halfway through, Frank stopped the song and said, 'Anyone with balls enough to play those lows notes has got the job.' That was it. I packed my stuff and went with [road manager Marty] Perellis into the office. He got my information and signed me up."

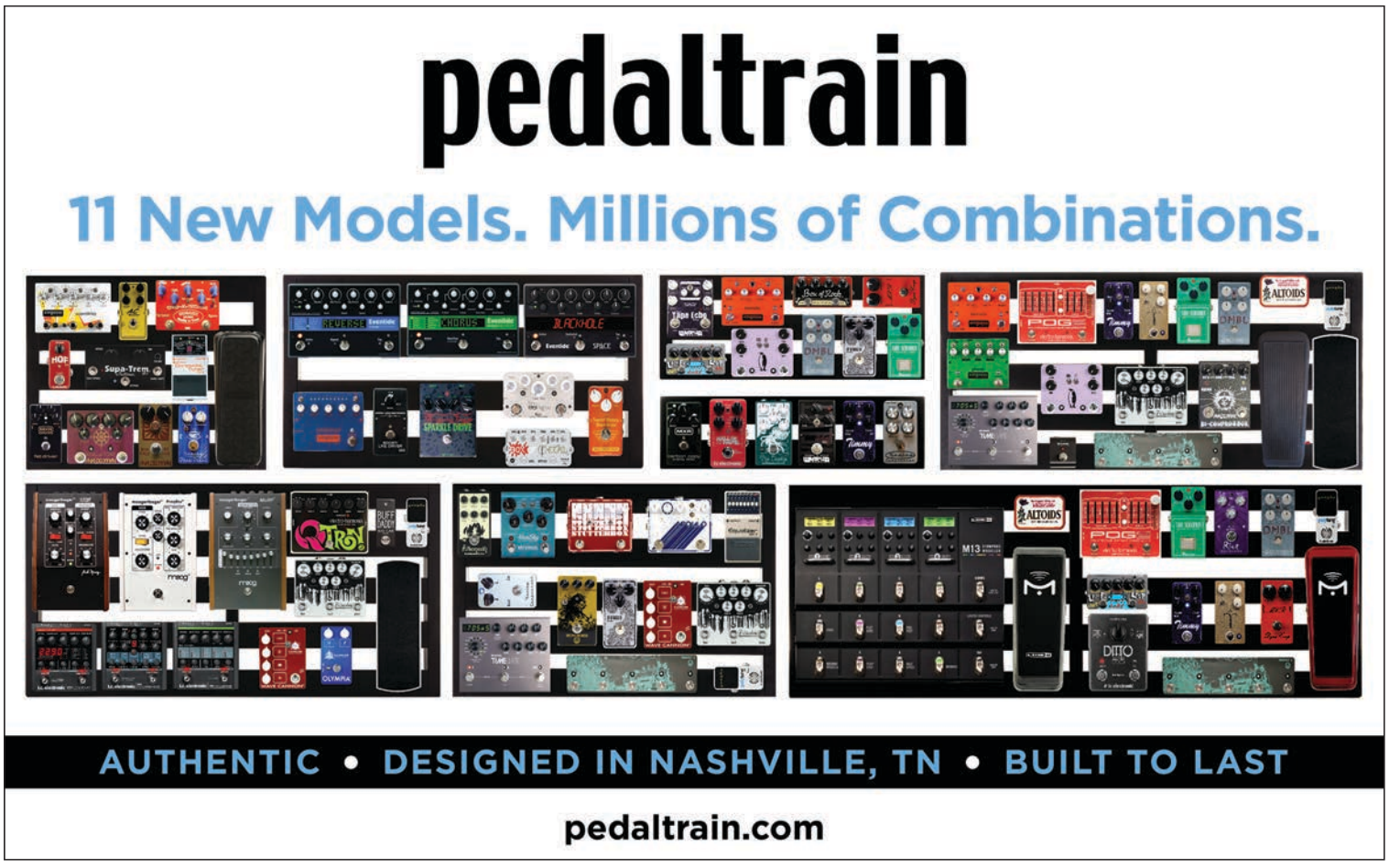
Although *Bongo Fury* is still very much a Zappa production, Walley's slide and Beefheart's harmonica make it notably raw and bluesy—and weirdly accessible. And Walley's playing shines. His fat tone and meaty slide on songs like "Advance Romance" and "Poofter's Froth Wyoming Plans Ahead" (and his unusual note choices in the guitar's lower register) create a heavy, earthy feel that stands in dramatic contrast to Zappa's unorthodox phrasing and effects-drenched tone.

In retrospect, *Bongo Fury* is considered an important transitional album for Zappa. (Drummer Terry Bozzio replaced Chester Thompson soon after Walley joined the band.) But not everyone saw it that way at the time. As Gordon Fletcher noted in his *Rolling Stone* review, "In a year that's seen the release of Lou Reed's *Metal Machine Music*, it would be difficult to call *Bongo Fury* 1975's worst LP, but … "

The guitars Walley used during his first Zappa stint remained his mainstays throughout his career, and he still uses most of them. For slide work he favors a Vinnie Bell-endorsed Danelectro Bellzouki model 7020 from 1965—a 12-string with a bouzouki-shaped body. Walley installs only six strings and usually tunes to an open A or G, using a capo to play in other keys. He wears his slide on his pinky. "I can still hold a chord [with my other fingers] but move the slide," he says. His slide—a metal tube made from the handlebar of a child's bicycle—is the only one he's ever owned. "I've had this my whole career," he says. "If I lose it, the show don't go on."

His other guitars included a blond 1957 Strat—sold many years ago—and a heavily modified 1962 Telecaster bearing the signatures of Scotty Moore, Les Paul, and Link Wray. Its modifications include a 6-position, Gibson-style Varitone knob, an onboard preamp, and a revolving cast of pickups. "At one time with Frank, I might have had two humbuckers in there," says Walley. "I've changed pickups so many times, though I still have the originals." He replaced the original neck in the mid '90s.

Walley's amp with Zappa was an Acoustic 150 head pushing an Acoustic 6x10 cabinet. "Frank wanted me to play through a Vox amp," he says, "but I just didn't like the tone. Even though the



A recent picture of Walley with his favorite slide guitar: a vintage Danelectro Bellzouki. It's a 12-string model, but Walley uses only six strings.

Acoustic was a solid-state amp, it had a tube quality. When you cranked it up, it had perfect distortion." Walley says he used few effects: "I only used the pedals that Frank gave me to use, like a Mu-Tron that I used on a few things."

Captain Beefheart's Magic Band

Following *Bongo Fury*—and on Zappa's recommendation—Walley joined Captain Beefheart's Magic Band. Both the music and work environment were unlike anything he'd encountered. "I'd never heard Don's music before," Walley says. "Frank gave me *Trout Mask Replica* to listen to. I put it on and thought, 'What? Where is my part? Where's the beat? Where is *anything*?' I could not listen with the right kind of ears—I wasn't ready. Frank's music was difficult, but there was structure to it. But in Don's, nothing ever repeated. I listened and listened, and after the third or fourth time I realized, 'God, this stuff is really just the blues.' The blues thing was really thick in there, and his voice was amazing. So I decided to give it a shot."

Walley was a member of Beefheart's band from 1975 through 1977. They toured Europe and parts of the U.S. and recorded the album *Bat Chain Puller*, which, due to legal issues and other complications, wasn't released until 2012. The album—viewed by some as a redemption following Beefheart's mid-'70s "Tragic Band"—features Walley throughout, notably his stellar slide work on "Owed T'Alex." Not featured on the original release—although now available for download on iTunes—is the Beefheart/Walley duet "Hobo-Ism." It's a mesmerizing blues jam featuring Walley's acoustic guitar and Beefheart's raw, uncompromising vocals and harmonica. "It was a one-off, stream-of-consciousness thing that happened in my living room," Walley says.

But Beefheart's free spirit, disorganization, and cult-like authoritarian style made Walley's tenure difficult. "Don used to do this thing where he would play one guy against the other. He would say things like, 'Hey man, somebody is thinking C, and

HALLMARKS OF WALLEY'S STYLE

Despite being idiosyncratic composers, Frank Zappa and Captain Beefheart gave their sidemen much creative space. Denny Walley explained some of the elements of his blues style and why it worked within avant-garde rock bands.

Did Zappa give his sidemen a lot of freedom?
Frank hired people not so much for their ability, but for the way they interpreted and heard his music. When you write something on paper, you know tonally what it should sound like, but it sounds different when it interacts with other people's emotions. You can play a note on your guitar and then give me your guitar. I'll play the same note, but it won't sound the same as your note. It's in your hands. You are the delivery system.

So he picked people for their delivery systems?
Obviously, because I was nowhere near the virtuosity the other guys had in their realms. When I played with Frank, the music dictated the type of playing. I would not be in one of his classical bands because I can't read that well. He didn't tell me what to play, and he didn't tell me to stop playing. He gave me an amazing amount of freedom.

It seems like Zappa gave you more tonal leeway than Beefheart. Did your personality still come come through in the Beefheart material?
Oh yeah. In fact, more than one person has said the material on *Bat Chain Puller* was the first time that Beefheart would be accessible to everyone without disappointing Beefheart fans—and they point out the slide guitar. My approach and style and influence—from all those blues guys—is where I live. I can't play 64th notes. I probably could if I tried, but I don't care about them. Take the Slim Harpo solo on "I'm a King Bee." It's one note. He plays it four times and that's it—but it's the tension in between. It's where you *don't* put the note, and how serious you are about that note. I like the economy of that. It's stripped down to the essence of the note's emotion. That's what I do. I've probably played the same thing on every song I've ever played on. But it just seemed like it needed it.

I don't think that's totally fair. I watched live Zappa clips, and you and Ike Willis play some difficult unison lines. You can do all that stuff, too.
I can do it if I'm forced to. But left to my own devices, it's not going to happen. It's not my style. I appreciate that style, but I don't hear it. For me, that part would never come into my realm of thinking. I can play it, but I never would have conceived it.

GARY HOLT

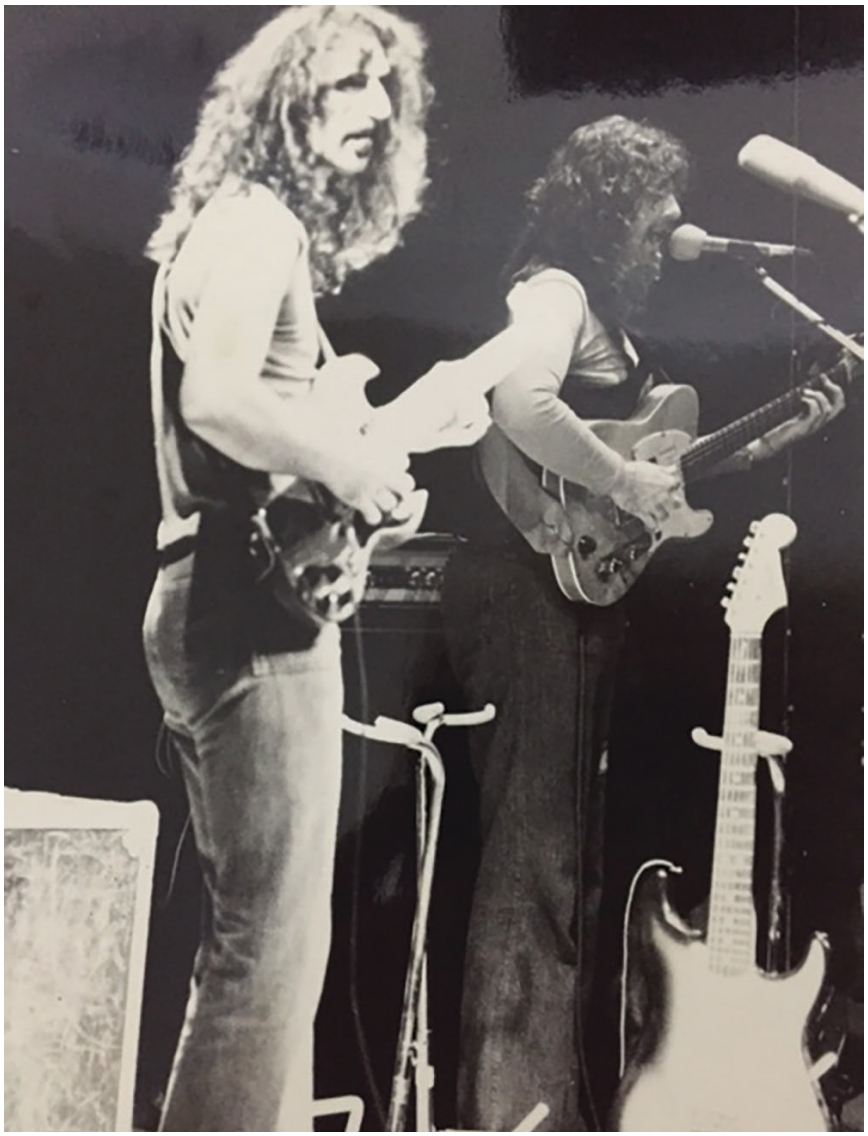
SIGNATURE SERIES

"My new ESP and LTD signature guitars are exactly what I've dreamed of for my entire playing life! Tone, shredding playability and stunning looks! And did I mention CRUSHING tone!? All around badass in every way, designed for delivering riffs and solos like a kick to the head!"

EMG
TONE STARTS HERE

ESP
40TH
1975-2015
ANNIVERSARY

LEARN MORE AT: espguitars.com



Zappa and Walley, onstage together.

you know who you are,' which would immediately send everyone into defense mechanism. You'd start defending yourself against the indefensible, and this would go on for hours." Rehearsals were sometimes 14-hour ordeals that didn't involve playing. Beefheart was brilliant and creative, but difficult and easily distracted. The work environment was frustrating, especially since the band wasn't getting paid. Walley, not one to be pushed around, stood his ground—maybe one time too many—and was given the boot. "Someone in the band was elected to make the call," he remembers. "He told me, 'You've made your bed. Now you have to sleep in it.'" But despite his departure, Walley remained on good terms with Beefheart. "In fact," he says, "after that is when we did 'Hobo-ism.'"

Return to Zappa

Following Beefheart, Walley went back to working with Zappa, joining his touring band and working with him in the studio. Walley appears on *Joe's Garage*, Zappa's satirical rock opera in three acts. "All the background singing is just Ike [Willis] and me, doubling and tripling our parts." Walley appears on many other Zappa albums, both studio compositions and live recordings.

"Frank recorded every concert with his own guys on his own gear," says Walley. He recorded rehearsals as well. Whole songs, sections, and solos might be taken from live recordings and inserted into other songs or incorporated into albums. A musician's work could end up on a Zappa album at any time, even years later. "Frank was the master of compilations," says Walley. "As a result of that I wound up on about 19 or 20 albums."

Zappa had such flexibility because his band was so well rehearsed, and much of what he recorded was perfect. "It was so accurate," Walley says. "For example, he was able to take a section of music from a song that was recorded in Chicago and use that with a recording from Pennsylvania. The tempo, the EQ—everything would be right. You could put it right in."

On tour, the band rehearsed daily during soundchecks, which usually lasted two or three hours. This constant rehearsal kept the band on its toes. "Frank had about 50 hand signals, and each one had a specific purpose. You would get the song and the key—if there was a key change—or if there was a modulation or a crescendo or decrescendo. He read the audience. He saw what kind of reaction he was getting, and he could change the set anytime he wanted because we were already preloaded for that." New material was constantly introduced. "Frank would hear things—or maybe a mistake or something would happen—and he would say, 'Put that in.'"

One song—"Jumbo Go Away," from the album, *You Are What You Is*—was written on tour about a female stalker obsessed with Walley. "She would show up everywhere, no matter what city. One night as we were rolling into the hotel—Frank was with us—and were waiting for the elevator, and *there she was*. I turned around and said, 'Jumbo, go away.' The next day at soundcheck, Frank handed me the words to a song he wrote called, 'Jumbo Go Away.' We learned that song at soundcheck and did it that night. Things like that happened all the time."

Post-Zappa

Walley was a fulltime member of Zappa's band until mid 1979. After that, he did session work and gigged around L.A.,

but didn't join another touring band. "After a while I figured, 'You know what? Maybe I should get a job,'" he says. He worked for a scenery company in Hollywood and then started sculpting and doing projects for amusement parks. He played locally, but didn't tour. Eventually, he made his way to New York and built scenery and props for *Saturday Night Live*. "That is the funny part," Walley says of the *SNL* job. He had been in Zappa's band in 1978 when Zappa was both host and musical guest. "I played on the show, then next thing I'm building the props."

Walley's solo recording output is sparse. He released a 45—"Who Do" backed with "Tiny Tattoo"—in the late-'70s with a band that features Zappa bandmates Tommy Mars, Ed Mann, and Vinnie Colaiuta, among others. He recorded a solo album, *Spare Parts*, in Sweden in 1997. "I did a tour with [Swedish duo] Mats/Morgan," he says. "We were playing blues stuff and originals. At the end of the tour, Morgan [Ågren] asked, 'Why don't you record an album while you're here?' So we recorded the songs we played on the tour."

YOUTUBE IT

Check out Denny Walley and the Muffin Men's amazing rendition of Captain Beefheart's "Suction Prints" at the Zanzibar Club in Liverpool, England, in 2013. Walley demonstrates his slide virtuosity right out of the gate.

YouTube search term: Denny Walley & the Muffin Men Suction Prints

Despite doing little recording, Walley hasn't stopped playing. These days he's back to making music fulltime. He recently finished a 13-year stint with the reunited Magic Band. He tours with Zappa tribute bands in Europe and the U.S., sits in with Zappa Plays Zappa, leads his own band, and creates new music. "I've been playing Frank's music and Don's music all these years, and I love doing that," he says. "But I love playing. I don't want to wait around for someone to want me to play with them. I want to play with me, too."

Without much fanfare or glory, Walley had a major impact on contemporary guitar. He was a student of the early blues and is a master of the style. His long career with some of his generation's most radical musical thinkers—plus his own innate curiosity and openness—helped redefine how the guitar is played. Walley showed just how far you could expand traditional forms and push the limits of what is considered "listenable." And he did all of that with a foot firmly planted in traditional music and tone.

And he's still doing it. "I'm not going to stop playing," says Walley. "I'm basically playing music for me. But if you enjoy it, all the better!"

Langejans Solidbody

BY ZACHARY FJESTAD

Q: ***Hi Zach,***
I purchased this Langejans instrument from a hole-in-the-wall guitar shop in Alberta, Canada. I've learned that Langejans made quite a few high-quality acoustic guitars, but a "Strat-type" seems unusual coming from his shop. Can you shed any light on this beauty?
Many thanks,
Jim Moscovich
London, Ontario, Canada

A: Thanks for the question—and pictures of this cool and unique guitar. It's appropriate to highlight American luthier Del Langejans, since he recently retired, and he deserves recognition for the many guitars he created. You are correct: Langejans is well known for his acoustics, but he also built a few electrics in the 1980s, including yours.

A bit of history: Delwyn "Del" Langejans grew up in Holland, Michigan. His father was a woodworker/homebuilder, and Langejans learned to craft wood at a young age. Langejans served in the U.S. Navy, and during his enlistment often entertained other sailors with his guitar and accordion talents. After his discharge, Langejans returned to Holland and worked at Meyer Music, where he learned more about guitar repair and electronics. In 1970 he started Del's Guitar Gallery, and a year later began building his own guitars with "Del" on the headstock. His store was later renamed Del's Music Center.

Since then, Langejans has produced more than 1,200 instruments, including acoustics, banjos, harp guitars, and a few electrics. The long list of guitarists who appreciate his instruments includes Peter Frampton, Earl Klugh, Thom Bresh, Jerry Reed, and Muriel Anderson, who plays a Langejans harp guitar. Langejans also produced a unique instrument for Bresh called the Dualette, which is basically a guitar with two fronts. One side is set up for steel-string playing, but when you flip the guitar over, it's designed for nylon-string picking. Ah, the ingenuity!

Most of Langejans' instruments are acoustic, the most popular of which are his dreadnought and grand concert models. These guitars are praised for their strong bass and canto-clear highs as well as their fine workmanship.

In the 1980s Langejans built a small number of solidbody guitars (about 80, by his estimate). Your guitar appears to combine a Brian May body and a Strat-style headstock. The instrument features a flat-sawn maple neck with an Indian rosewood fretboard, Grover Rotomatic tuners, and a brass nut. (These were popular among some '80s builders, who found brass brighter than the usual bone.) The frets are .105" wide—almost as wide as those commonly found on electric basses—and these seem to enhance the guitar's robust sound. The neck is bolted to the body in a snug-fitting pocket that supports the neck on both sides.

The guitar houses three EMG single-coil pickups. The electronics include a master volume, two tone controls, and a 5-way Strat-style pickup selector. There's a Tune-o-matic-style bridge with a stop tailpiece. The body is made from a single beautiful piece of mahogany, with a dead-flat top and a contoured back. It measures 14.25" at the lower bout and is bound in white plastic and a simple wood inlay strip.

In 2012 Langejans announced his retirement, and he no longer accepts orders for new guitars. Today he devotes much of his time to instrument repairs, and his wife fields occasional questions about older Langejans models. Few independent luthiers manage to build 1,200 or more guitars in their lifetimes, so Del has created a unique legacy.

When Langejans retired, his base price for guitars was $3,495. Today their value is $3,000 and up, depending on the model and materials. However, I don't see many of his electric instruments for sale. I estimate the value of your guitar to be somewhere between $3,000 and $5,000, but I could be low due to the unknown desirability of his electric guitars. Regardless, I consider a guitar that plays this well and looks this nice to be a treasure.

ZACHARY R. FJESTAD *is author of Blue Book of Acoustic Guitars, Blue Book of Electric Guitars, and Blue Book of Guitar Amplifiers. For more information, visit bluebookinc.com or email Zach at guitars@bluebookinc.com.*

1966 FENDER®
STRATOCASTER®
ITEM: 110025693

Guitar Center

VINTAGE
COLLECTION

THE GREATEST SELECTION OF THE FINEST INSTRUMENTS EVER MADE

GUITARCENTER.COM/VINTAGE 855-484-6824

BEYOND

THE PYRE

Photo by Andrew Stuart

After the loss of Jeff Hanneman, Slayer bequeaths the new album Repentless, *a fitting name for the continually evolving thrash-metal veterans whose hardcore sonic assaults come with a serving of soapbox protest.*

BY TED DROZDOWSKI

"Slayer is Slayer." The historic thrash-metal band's current lineup of fret burners repeat this statement like a mantra in conversations about, well, Slayer. But the truth is, Slayer isn't Slayer—at least not the same Slayer that played their first brutalized notes together in 1981 and dripped aural blood drawn by the horn of Satan all over their debut album *Show No Mercy*.

For one thing, cofounder Jeff Hanneman—a much beloved creative force in Slayer and a ferocious guitarist—is gone. Tragically, he died from liver failure in 2013, at just 49 years old.

And for another, already a decade into their career when they released 1990's *Seasons in the Abyss*, Slayer evolved and has kept evolving. Songs about soul-sucking demons wreaking havoc were replaced—albeit not entirely—by observations about more real evils like nuclear war ("Skeletons of Society") and rampant gang violence ("Expendable Youth"). And so without the late Hanneman, Slayer has gone on with guitarist Kerry King and bassist and singer Tom Araya penning numbers about the horrors of battle, the dangers of religious fanaticism, the oppressiveness of racism, and other societal schisms. And they've packed those messages with brass-knuckle precision and a very un-thrash obsession with hook-based songcraft that's earned Slayer two back-to-back "Best Metal Performance" Grammys for 2007's "Eyes of the Insane" and 2008's "Final Six."

The point is, the Slayer that wrote those prizewinners about war and moral corruption—and has just created the new album *Repentless*—is different in character

from the band that recorded "Fight Till Death," "Show No Mercy" and "Die by the Sword" on their debut berserker fest.

It's true that today's Slayer *is indeed* Slayer, in that the group remains as hook-conscious and cold-forged-sledgehammer hard as ever. And that's regardless of lineup changes, including the arrival of Exodus guitarist Gary Holt in 2011, and drummers Dave Lombardo and Paul Bostaph swapping that gig back and forth, with Bostaph ruling the drum throne for *Repentless*.

But deep down in the DNA of Slayer 2015 there's also a fat strand of Phil Ochs, Woody Guthrie, and Joe Hill, which means that despite Slayer's standing as a foundational and durable thrash metal outfit, they're also veteran protest singers. This social consciousness is often overlooked due to the band's ceaselessly heavy musical pyrotechnics.

"You could look at it that way," Araya says by phone from a hotel room outside Philadelphia where Slayer's moored for a show in nearby New

Slayer frontman and bassist Tom Araya plays his signature ESP model, which has an alder body, maple neck, ebony fretboard, Gotoh tuners and bridge, and EMG 35DC pickups.

Jersey. "And we've all had our roles in writing songs that protest different things. Jeff covered the violence of war and its effects on society. I covered the psychological aspects of the evils that men do to one another. And Kerry is the anti-religious guy—he chronicles organized religion's wrongs."

King, the band's other remaining charter member, concurs. "I guess the Slayer thing has been to get on your soapbox and give the listener a piece of your mind," says the stocky tribal-tattooed metal titan, "and it's been that way for a long time."

Something else worth noting: On *Repentless* there's not a single song about a serial killer—something of a specialty in Araya's lyric-writing skill set. "Dead Skin Mask," a song he co-wrote with Hanneman that was inspired by the notorious Wisconsin cannibal Ed Gein, remains one of the genre's greatest paeans to a dark-hearted bringer of death.

Well, maybe there *is* just one: *Repentless*' bright, biting "Atrocity Vender," but its first-person meth-blast of vitriol is a little vague. Nonetheless, King's and Holt's fanged guitars charge through the tune like a pair of enraged Tyrannosaurus rex, panned left and right in the mix to better cut the air until a wiggy wah-wah solo jumps in.

Despite his absence, Hanneman's ghost hovers over the new Slayer album. "When the Stillness Comes" is King's musical tribute to his fallen friend. The intro is built around a few clean-picked, chorus-soaked notes that refuse to resolve, and the gnashing chord progression stays equally edgy and troubling.

"Jeff always played the moody guitar parts, so I decided that I needed to step up and take that role in addition to coming up with the riffs for the record," says King. "Once that song came together, I knew that Slayer was going to be able to continue to be Slayer."

That resolution did not come easily. "For the first time in my life," King continues, "everything was a question mark after Jeff got sick and had to be replaced—we'd hoped temporarily—by Gary, and then died. The last few years

YOUTUBE IT

This live video from a 2014 German concert displays the current Slayer lineup tackling a band classic, the song "Angel of Death" from 1986's *Reign in Blood*. The interplay between Kerry King and Gary Holt heats up at about the 1:30 mark, when they tear into unison riffs that straddle melody and rhythm. Two minutes later Holt proves why he's such a capable replacement for the late Jeff Hanneman. It's a textbook performance by this thrash metal institution.

YouTube search term: Slayer – Angel Of Death (Live Wacken 2014) [HD]

Photo by Ken Settle

THE BEST AMPS IN THE WORLD

THE PROFILER

"With profiling, Kemper changed the world for all guitar players, making it a better place indeed.

Because all the best guitar amps in the world – with their tones meticulously designed, thourougly mic'ed and recorded in the best studios – are available with the Profiler. Ready to be taken to the studio, the stages around town .... and around the globe!"

The Profiler comes loaded with the finest Rigs created by artists, producers and performers who are famous for their tone.

NEW:

PROFILER REMOTE
All Performances and Rigs can be controlled without further setup.

m.i.p.a.

AWARD 2013: BEST GUITAR HEAD
AWARD 2012 & 2013: MOST INNOVATIVE PRODUCT

KEMPER-AMPS.COM
facebook.com/kemperamps

KEMPER

KERRY KING'S GEAR

GUITARS

B.C. Rich Kerry King V Two Tribal Onyx
B.C. Rich Kerry King Metal Master V
B.C. Rich Kerry King Metal Master Warlock
B.C. Rich Kerry King Warlock
Two Tribal Onyx
B.C. Rich Kerry King Signature Warlock 6

AMPS

Marshall 2203KK Kerry King
Signature JCM 800
Marshall MF400 Mode Four
400-watt 4x12 Cabinet

EFFECTS

Dunlop Zakk Wylde wah
MXR Flanger
Shure wireless system

STRINGS & ACCESSORIES

Dunlop Kerry King Icon string sets (.010-.046 and .010-.052 for dropped tuning)
Dunlop .88 mm Tortex picks

Photo by Ken Settle

> **“The trickiest thing about Slayer was adjusting to the way Jeff and Kerry write chord changes.” —Gary Holt**

have been stupid hard as we’ve tried to figure out if we wanted to keep going, if the music still translated onstage and in the studio without Jeff, and if the fans were still going to be into it.

“Touring with Gary for the two years before Jeff died answered our questions about the fans, who’ve stuck with us. But it wasn’t until I wrote ‘When the Stillness Comes’ that I could stop holding my breath.”

Repentless makes the case that Slayer is Slayer on every track, whether Araya’s taking the bully pulpit in the anti-racist “Pride in Prejudice,” which glides on a deep head-banging groove, or King and Holt are setting fires with their tag-team approach on compositions like “Take Control,” a sonic joyride that starts with a “Misirlou”-meets-metal intro and speeds into a tidal wave of riffs that stills just long enough for the two string-slingers to trade solos—Holt going for a hot melody and King sculpting an anthemic crescendo.

The album’s title number was also composed as an ode to Hanneman, who cofounded the band with King after they met at an audition and jammed on tunes by Def Leppard, AC/DC, and Judas Priest.

“I wanted to write a song about the way Jeff looked at the world,” says King. “He was repentless, just like Slayer is repentless. Jeff shared my views on religion. He believed we make our own destiny. No regrets. The challenge was working the aspects of his playing into the song, letting the riffs evolve in little variations as it goes on. And then me and Gary just let the solos rip.”

Ripping solos have been Holt’s specialty for as long as Slayer has been Slayer—albeit mostly with a different band: Exodus, which he joined and then led in 1981. And he’s got plenty of experience in guitar partnerships. Kirk Hammett was Holt’s fretboard foil in Exodus for two years, until Hammett departed for Metallica in ’83.

On *Repentless*, Holt blazes in “You Against You,” playing rapid-fire melodies over King’s chords. And on “Take Control,” he delivers an essay in high-speed single-note chromatic soloing, whipping the song’s instrumental break to an ecstatic level.

Like King, Holt is fond of his wah pedal. Both frequently use the classic effect as a transitional flag, announcing new sections of a song or a solo with its sweep. And Holt, in particular, uses the device as a treble boost, snapping it down to make his tone more cutting. It’s a move first mastered by such old-school guitar heroes

Gary Holt plays his signature ESP model during Slayer's set at the Rockstar Mayhem Festival in July 2015. Holt, who's been the main songwriter and guitarist for Exodus since 1981, joined Slayer on tour when the late Jeff Hanneman fell sick in 2011.

as Hendrix and bluesman Albert Collins, and still a reliable attention getter a half-century later.

Holt also sidesteps thrash clichés, using space for dramatic effect—a concept learned from influences that include Robin Trower and Ritchie Blackmore—and avoiding sweep arpeggios. "I was sweeping my ass off years ago," he explains. "I was way into Yngwie when he came along. But I've consciously moved away from that with Exodus and with Slayer.

"Since my playing in both bands is essentially the same stylistically—except I play more chromatically with Slayer and use more scales with Exodus—going into the studio with Slayer for the first time was really natural. And while Kerry was writing new songs and we were making *Repentless*, I was also working on a new Exodus album, *Blood In, Blood Out*. So there wasn't a lot of time to overthink things. I played from the gut.

"The trickiest thing about Slayer was adjusting to the way Jeff and Kerry write chord changes," Holt adds. "It takes a while to get inside their heads by analyzing the songs and watching Kerry play, and it's only after that

GARY HOLT'S GEAR

GUITARS
ESP Gary Holt Signature model

AMPS
Engl Savage 120
Kemper Profiler Rack Guitar Amp Modeler
Marshall DSL 300 heads
Marshall MF400 Mode Four 400-watt 4x12 Cabinet

EFFECTS
Maxon Overdrive
Dunlop Jerry Cantrell wah
TC Electronic Shaker Vibrato
MXR Smart Gate Pro
Pigtronix War Hog
Epigaze Audio Singularity Fuzz
Shure wireless system

STRINGS & ACCESSORIES
Dunlop Heavy Core hybrid sets (.009-.046, .010-.050 for Eb tuning, .010-.52 for C♯ tuning, and .010-.060 for C tuning)
Dunlop .88 mm Tortex picks

TOM ARAYA'S GEAR

BASSES
ESP Tom Araya Signature model

AMPS
Marshall VBA400s
Marshall custom 8x10 cabinets

EFFECTS
dbx 160A Compressor/Limiter
MXR Bass DI+

STRINGS & ACCESSORIES
Dunlop Stainless Steel mediums (.045 -.105)
Dunlop heavy picks

Photo by Ken Settle

"Sonics snatched from the heavens"
- Premier Guitar, June 2015
FRYETTE
David Torn's rig, featuring the Fryette Aether.
Date: 5/21/2015 Venue: Blue Whale, Los Angeles, CA.
PREMIER GEAR
FRYETTE
AMPLIFICATION
www.fryette.com

Make your big amp whisper . . .
...make your little amp Scream!
EDGE
BRITE
FLAT
DEEP
WARM
FLAT
VOLUME
PRESENCE
DEPTH
Power Station®
-Integrated Reactance Amplifier-
FRYETTE
Variable Reactive Load + Tube Power Amplifier
OPERATE
ON
BYPASS
POWER
Reactive load: Get the sound & feel of your cranked amp at any volume.
All-tube Power Amp: Dual 6L6s make your lunchbox amp perform on stage.
Effects Loop: Imagine your stock vintage amp with post distortion reverb.
Total Control: Response switches enhance your amps dynamics.
EDITORS' GuitarPlayer PICK
FRYETTE
AMPLIFICATION
www.fryette.com

happened that I could learn their note selection and preferences, which dictate where I need to go."

King, who was the primary songwriter on *Repentless*, also helped with that. "Kerry picks the spots he thinks are well suited for me to solo," Holt explains, "and after three years of playing together on the road, he knows my style well and those spots are usually exactly where I already have a cool part in mind. We're really in sync.

"One thing a lot of people don't know about Kerry is how hard he works," Holt continues. "We'd have a day off on tour and I'd just want to see the insides of my eyelids. Kerry would disappear into his room with his guitar and write songs all day."

Much of the album was composed during Slayer's 2013 European tour. "I like to think visually, and I get a lot of inspiration for song ideas from movies and things I see in everyday life," says King. "So I think of the songs on *Repentless* as 11 mini-screenplays."

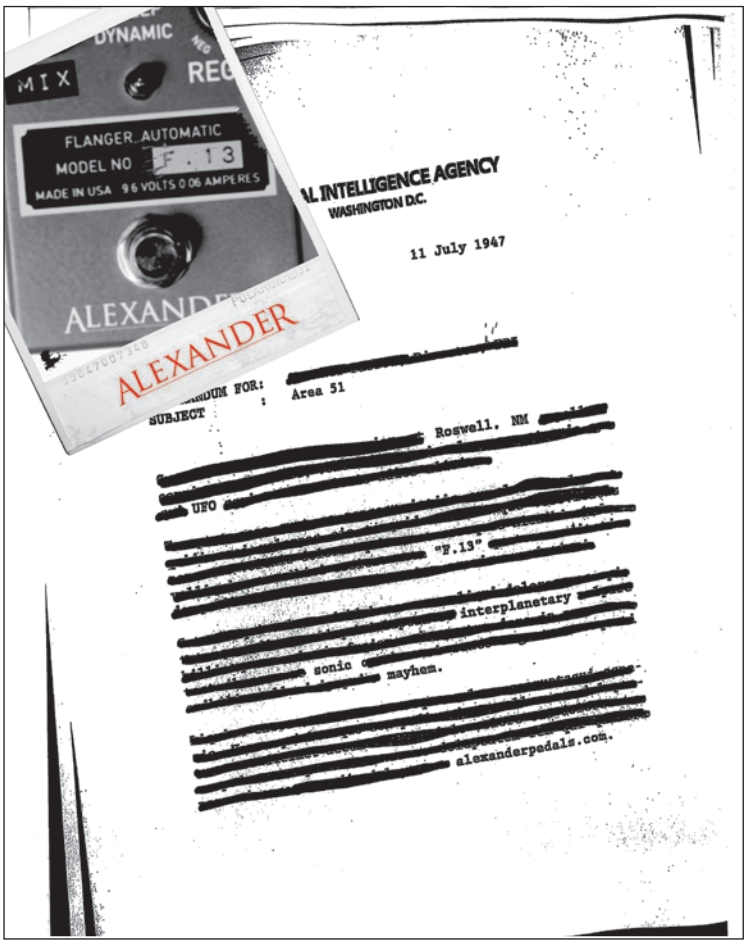
Riffs are typically King's opening reel. "I have two acoustic guitars at home, and I don't think they've ever seen the outside of their cases," he laughs. "But I play my electric guitar unplugged when I'm writing songs and when I find a riff, I record it on my iPhone. I put the phone on my knee so it'll pick up the sound of the strings. I may come up with an intro riff, a chorus riff, or whatever. But after I come up with that first riff, my job is to find its 'friends.' A new riff doesn't have friends yet, but when I come up with another riff that works with it, and another one that works with *that* new riff, and they all start to connect, that's when I know I've got a song. It's all about finding riffs that are each other's friends and putting them together."

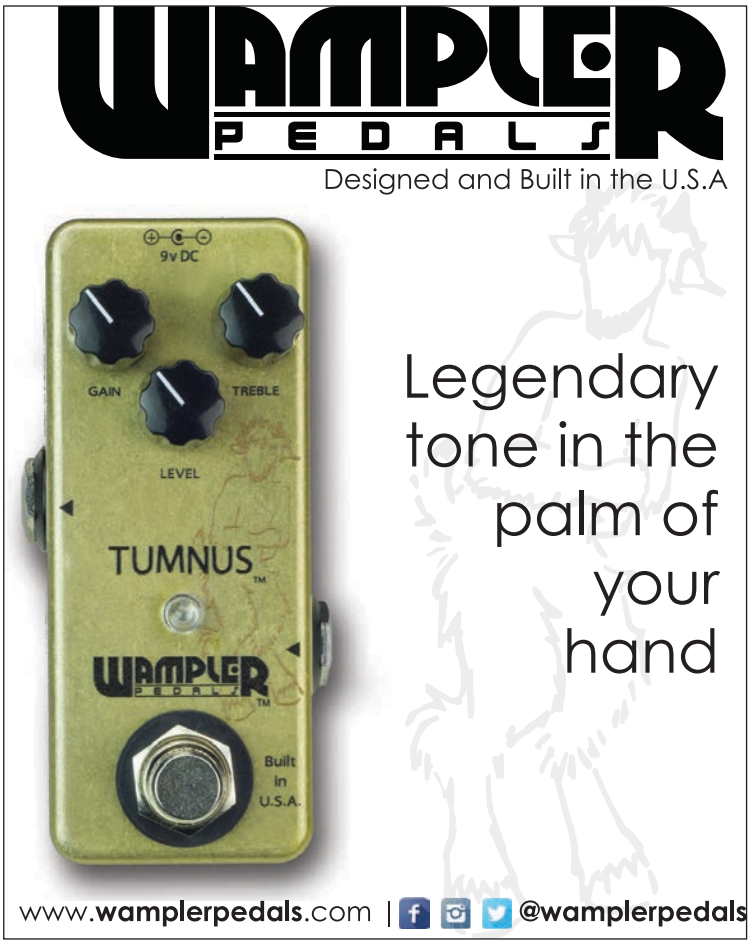
Sometimes King's "friends" stay lonely for a while. The chorus riff for *Repentless*' "When the Stillness Comes" was written 20 years ago.

"I'd mess with it from time to time, and put it away again," he says, "but this time it started to have friends. After I got the riffs and chords for the song together, I wrote the lyrics during a three-hour van ride through bum-fuck nowhere to get to the next gig." The result is one of *Repentless*' most melodic, dynamic, flowing numbers. It starts with a subtle guitar melody supported by gentle cymbal strokes from Bostaph, then relents to a chugging and slashing wall of guitar that builds to a sonic pyre, while Araya smoothly croons about violent death ... proving yet again that Slayer lives on.

"With every album, we do grow musically and lyrically as a band," says Araya. "But this time, just managing to move forward was the goal, and we did it one step at a time.

"Originally the band was four parts," he continues. "Then Dave left, and it was three. Now it's just two of us, and me and Kerry have come to terms with the idea that as long as we can continue to approach things in the right way, Slayer will be Slayer."





ELEMENT OF DOOM

EOD

We've created the EOD88 in the spirit of heavy music's early pioneers. The days when primordial metal bellowed forth from the cavernous caves of basements, clubs and eventually arenas all over the world. A touch of modern is added with 3 gain modes, KT88 power design and a built in fuzz circuit. If your music rattles the very fabric of space and time, then the EOD88 is your interdimensional war machine.

Randall AMPLIFIERS

WWW.RANDALLAMPLIFIERS.COM

RANDALL AMPLIFIERS IS A DIVISION OF U.S. MUSIC CORP. | 1000 CORPORATE GROVE DR, BUFFALO GROVE, IL 60089 | 800.877.6863

The Right Stuff

BY PETER THORN

Success didn't fall into the Beatles' lap: They worked their asses off, playing 292 gigs at Liverpool's Cavern Club.

I recently asked folks who follow my Facebook music page to send some music- and guitar-related questions. I answer them via YouTube videos on a playlist I started called "Q&A." It's a fun and easy way to stay in touch with fellow guitarists, and a means to provide some (hopefully) useful insight. It's also given me terrific material for my column. This month I'll answer a question from Gert-Jan Stehouwer, who asked: "How did you build a career as a musician and what made you go from being a good guitar player to being a pro?"

Prerequisites. First, you have to love making music to make a living as a guitarist, and you have to want it *really* bad. You must essentially be obsessed with the guitar to have a shot at being a pro. There are going to be lean times, low-paying gigs, and plenty of gigs with no pay. The thing that will keep your spirits up through rough times will be your love for your instrument.

I've mentioned this before, but it's extremely important to be someone who's easy to work with. Be a good listener, always try to be on time, and develop a strong work ethic early on.

Work very hard. I recently watched an Elon Musk interview. He's a fascinating and inspiring man who's achieved incredible success at an early age by founding PayPal, Tesla Motors, and SpaceX. Musk suggests that in order to start a successful company, the number one rule is to work hard—*very* hard. He suggests 100 hours a week. Though he contends it may sound like a crazy amount of hours, you'll accomplish in four months what it takes a year for someone who only works 40 hours a week. I'm not suggesting that you have to practice the guitar or write songs 100 hours a week, but you get the idea. You're attempting to do something that requires a disciplined, self-starter mentality and there's just no substitute for putting in necessary time.

My reality check. When I moved to Los Angeles to attend Musicians Institute, I got a reality check right away. It was orientation week at school, and there were concerts by guest performers each night in the auditorium. I saw some incredible musicians that week, and my perception of what was good was changed forever. I learned that being a pro was *not* just about woodshedding licks and practicing my technique.

I'll never forget the incredible Michael Hedges taking the stage in front of a packed house of aspiring pro guitarists. All alone with his guitar, he was *so* commanding, intense, and inspiring. I already knew I had to develop a command of my instrument to be a pro, but watching performances like Michael's taught me that I also needed to develop in areas like pacing, dynamics, and when to play versus leaving space in the music. I needed to learn how to *communicate* with my guitar and it's something I still work on every day.

10,000 hours. Let's go back to that hard work thing. In his book *Outliers*, Malcolm Gladwell claims research shows one must put in 10,000 hours of practice to achieve mastery of a certain field. The statistics show there are no "naturals," and there are no shortcuts to mastery. This applies to both personal practice time and time spent performing in front of people. There are things you just can't learn by practicing in your bedroom.

Consider the Beatles: It's been said that before they were the greatest band in the world, they were the greatest bar band in the world. They paid their dues by performing constantly: *four* sets a night between 1960 and 1962 in the dive bars of Hamburg, Germany. And let's not forget the 292 gigs they did in Liverpool's Cavern Club!

These days, YouTube is rampant with guitarists shredding amazing licks, but most of them are doing it in the comfort of their own homes. I'd wager that if you put them onstage, many of them wouldn't be able to lock in with a rhythm section well, execute their licks as effectively, or deliver a an entertaining performance with a band. To be a pro, you need to find other musicians who are like-minded and then get out and play *in front of people* as often as possible. This can be challenging with seemingly fewer and fewer venues for live music in many cities, but there is no substitute. You'll get better and you'll make connections with other players that will hopefully lead to better gigs.

Be an extrovert. Executing licks well is one thing, but you must learn to perform to be a pro live guitarist (unless you're in a shoegazer band). The audience wants a show! The first basic step is being able to play while wearing a guitar on a strap. Then, you need to get comfortable playing while moving around. On my current gig with Tsuyoshi Nagabuchi, I've had to learn to play melodies and licks while simultaneously swinging my guitar neck wildly back-and-forth in unison with the other players. We do a ton of running around, jumping off risers, and more. Hey, it's a rock show!

If you take anything away from this column, let it be this: There's *no* substitute for hard work and putting in the time, so get out there and play.

PETER THORN
is an L.A.-based guitarist who has toured with Chris Cornell, Melissa Etheridge, Tsuyoshi Nagabuchi, and many others. He released a solo album, Guitar Nerd, *in 2011. Read more at peterthorn.com.*

Photo by George Groutas

Meet the new box!

The Radial JDX Reactor™ amp DI box has been ugraded with 48-Volt phantom powering and some great new features!

"Musicians love the JDX in their IEM's. That's a great compliment when you realize just how demanding these guys are about their sound."
~ Kevin Madigan
FOH - Lucinda Williams.

"Fans don't care about the technology... long as the bass and guitars make Godzilla weep and hide. The JDX works."
~ Doug Short
FOH - Megadeth, Judas Priest, Van Halen, Iron Maiden.

"With the JDX, I get consistent, coherent tone night after night and the guitarists love the sound in their in-ears. It simply rocks!"
~ Eddie Mapp
FOH - Evanescence, Papa Roach, Stone Temple Pilots.

"The JDX is almost too good to be true. The artists hear the sound they are playing and I'm not fighting mic coloration. Plug it in & turn it up."
~ Jon Garber
FOH - Rascal Flatts, Brad Paisley.

"The JDX captures my sound with previously unobtainable control and clarity, offering our soundman a direct injection of sonic rage!"
~ Kerry King
Guitarist - Slayer.

"The JDX is nothing short of revolutionary! I can't believe the clarity and dynamics, yet it still retains the grind of my bass amp. It breathes!"
~ Danny Miranda
Bassist - Queen, Blue Oyster Cult, Meat Loaf.

"The Radial JDX captures the distortion from the bass amp without any loss of low end. And with such a loud band, it also helps eliminate spill."
~ Jon Burton
FOH - The Prodigy.

"Folks don't realize how hard it is to make multiple guitar channels live happily together. With a JDX, mic placement is no longer an issue."
~ Bradley Johnson
FOH - Aerosmith, Whitesnake.

"The JDX gives character without the worries of bleed and feedback. I was so surprised how close it sounded to a SM57, I had to double-check."
~ Jim Warren
FOH - Radiohead, Arcade Fire, Nine Inch Nails.

"I was looking to make the bass 'poke' through in my mix so I tried the JDX. It's a great alternative to mic'ing a dirty cab. I've been using it ever since."
~ Russ Giroux
FOH - Chickenfoot.

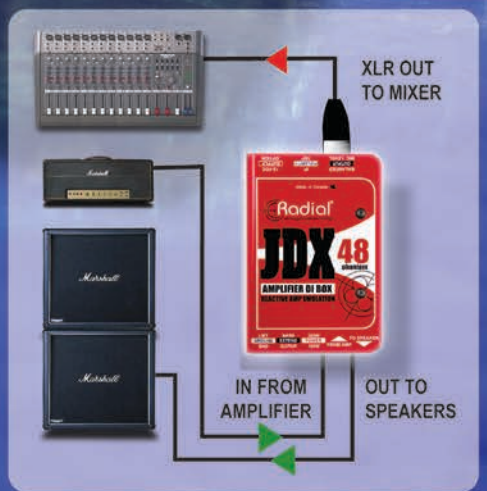
"The Radial JDX eliminates bleed and potential feedback while producing a familiar sound. The day to day consistency lets me bring the faders up with confidence."
~ Kenneth H. Williams
FOH - Erykah Badu.

Sound engineers have long been fighting to get guitar amps to sound good through the FOH and monitor systems. Room acoustics, phase, resonance from the stage floor and bleed from other instruments all play havoc — and that' is just the start... you still have to make the amp sound good with a mic placed right in front of the speaker. To make matters worse, those pesky guitar players are all using in-ear monitors so they are hearing the sound straight off the mic... and they're not very happy with it.

Radial changed the rules with the **JDX™** reactive amplifier direct box — the world's first direct box designed specifically to capture the sound of the head *and* the electro-magnetic back impulse from the speaker cabinet to give you consistently great amp sound, night after night.

The new **JDX 48™** now ups the ante by adding phantom powering, a100/300 watt amp power selector and a low-end extender to make it work even better on bass guitar.

Meet the new JDX 48... same as the old box, but now even better!



Radial engineering

...power tools for power players℠

radialeng.com

1588 Kebet Way, Port Coquitlam BC V3C 5M5 tel: 604-942-1001 email: info@radialeng.com

Copyright©2015 Radial Engineering Ltd. Specifications and apperance subject to change without notice.

The strings to play when you're done playing around.

nyxlstory.com

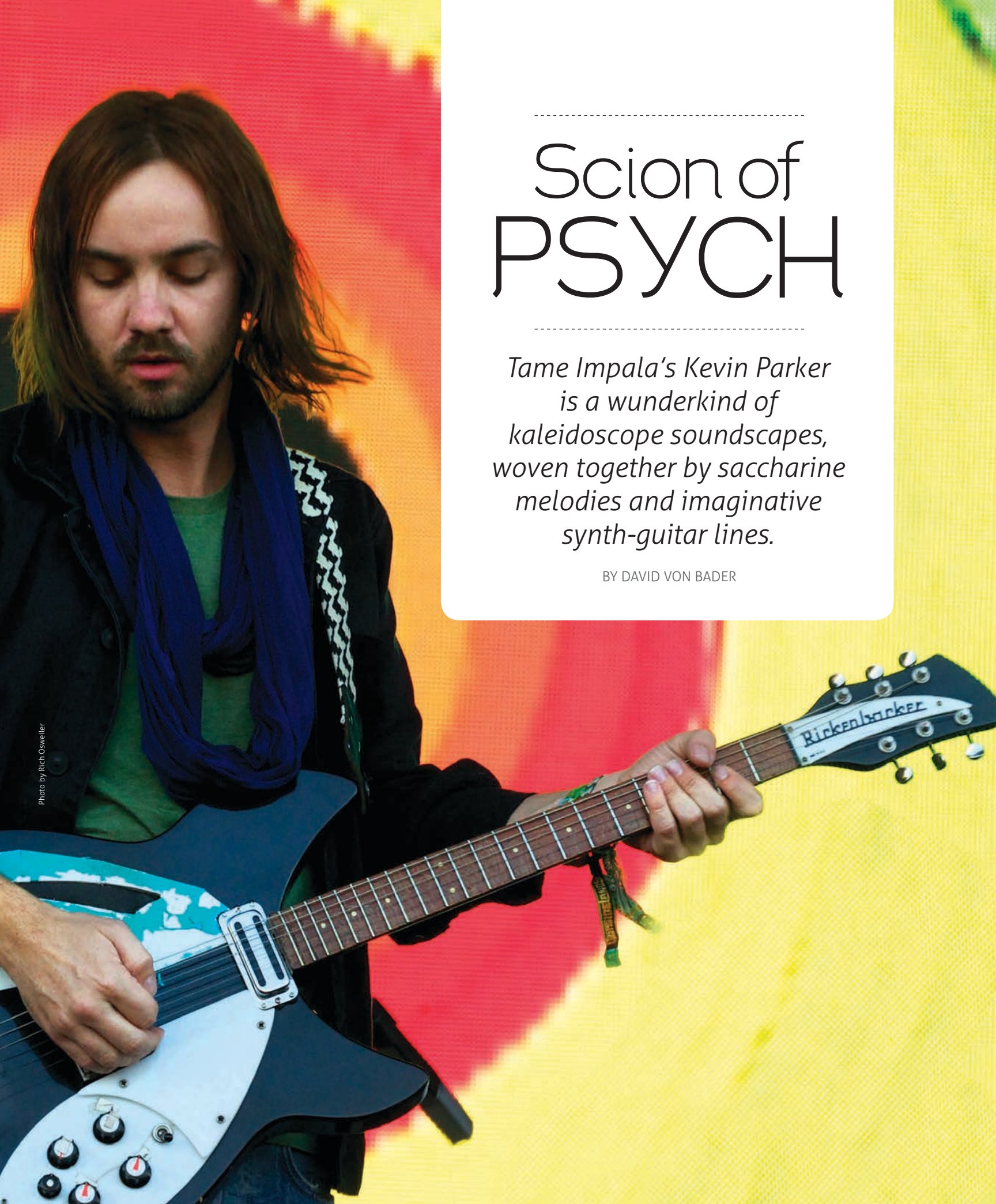


Photo by Rich Osweiler

Scion of PSYCH

Tame Impala's Kevin Parker is a wunderkind of kaleidoscope soundscapes, woven together by saccharine melodies and imaginative synth-guitar lines.

BY DAVID VON BADER

Kevin Parker plays his No. 1 guitar, a '67 Rickenbacker 335, during Tame Impala's set at the 2015 Sasquatch Festival. Parker says older Rickenbackers have something new ones don't. "They just have this pristine crispness to them. They just sing to me, you know?"

Amid the massive resurgence of psychedelia in recent years (though you could argue that it never really went away), no single artist has transcended the confines of the genre the way Australia's Tame Impala has. Perth's heir-apparent to the psych throne, Kevin Parker, effectively *is* Tame Impala. A well documented and self-professed control freak, Parker has single-handedly written, produced, and tracked the entirety of Tame Impala's recorded output, which now includes the band's anxiously awaited and critically lauded third full-length, *Currents*.

While Parker's dedication to solitary work may be off-putting to some, the young scion of psych is more focused on articulating the musical visions that exist in his mind than on the glory his labors yield. Despite assembling a monster team of musicians to bring his records to life on the road, the calculated, meticulous drive at the heart of Parker's endeavors can't be overridden, and has even pushed him to create the visuals for Tame Impala's performances.

Currents is a sonic departure from the sun-soaked, '60s-informed sounds of its predecessor, *Lonerism*, especially in its reliance on classic prog-synth sounds over the more traditional guitars that characterized previous Tame Impala records. Still present are the saccharine melodies and dreamy textures that are Parker's calling cards, but on *Currents*, everything is juxtaposed against dance-ready rhythms and placed in the chasm between '60s psych and modern pop, earning the album near-universal acclaim.

At first listen, *Currents* can give the impression that Parker has abandoned the guitar in the name of synths. But further examination reveals an album cleverly littered with guitar synth and otherwise processed guitar sounds that speak to Parker's new approach to writing and recording with the instrument.

We gained an audience with Parker, who opened up about his writing process, early influences, and approach to getting the unique guitar and bass sounds on *Currents*.

Photo by Debi Del Grande

Kindly remember:
the ridiculous hype
that offends so many
is not of my making.

The guitar seems less prominent on this album—or at least far more processed than on your previous records. What took you in that direction?

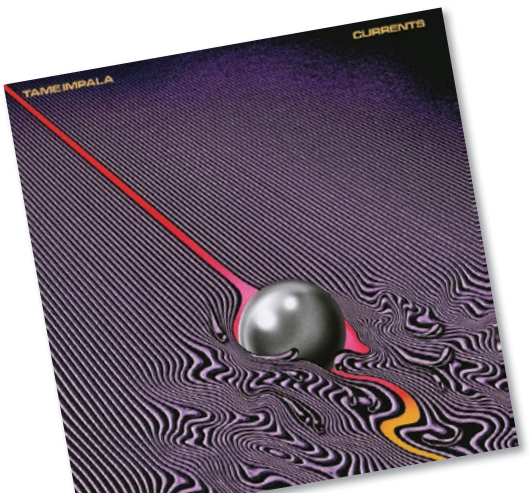
One of my favorite ways to use a guitar is to find new flavors with it, but there's an organic sound that comes out of a guitar that nothing else can really replicate. It's almost like a human touch. I liked the idea of *that* making cameos every now, rather than being this chugging base of the song this time around. The way the album was going sonically and texturally, I wound up processing the guitars more. There are guitars on every track, but they come in every now and then, more as an outside element or answer to other sounds.

Did you approach writing those guitar parts differently to navigate all of those big synth sounds?

Yeah, but I've always written songs that feature synths and guitars working together. The style of music on this one is more ... modern, for lack of a better word. Some of the chord progressions and rhythms are more R&B, and when you put rocking guitars on top of that, it can ruin it. So I had to be really careful with how I played the guitar—what types of chords I used, the types of licks I'd play—so that it worked with those other ideas.

Was the guitar still an important writing tool on Currents?

Not so much. I've been getting better at playing keyboards, which



> **"There's an organic sound that comes out of a guitar that nothing else can really replicate. It's almost like a human touch."**

SYNTHFUL GUITAR: KEVIN PARKER'S GEAR

Tame Impala mastermind Kevin Parker's main guitar is a 1967 Rickenbacker 335, which he customized with painted tape. He also sometimes uses a Squier J Mascis Jazzmaster with a Roland GK-3 synth pickup, which belongs to Tame Impala keyboardist Jay Watson. Parker tunes his guitars a whole-step down from standard: D–G–C–F–A–D. Parker's Hofner bass was also a primary tool when making *Currents.*

Parker's pedals are divided between three boards. The first has a Roland GR-55 synth running into a Yamaha mixer routed to a Radial J48 DI box.

The second board includes an Electro-Harmonix Small Stone (V4) and Holy Grail Reverb, MXR's Dyna Comp and Carbon Copy Analog Delay, an EarthQuaker Devices Terminal Fuzz, Boss's BD-2 Blues Driver and TU-3 Chromatic Tuner, and an Ernie Ball volume pedal. This board is routed to a Vox AC30H2 combo.

The third board employs a Boss GT-100 multi-effector, Electro-Harmonix Holy Grail Reverb, Diamond Vibrato, Empress ParaEQ, and a Bogner Wessex Bubinga Overdrive. This board is also routed to a Radial J48 DI.

Parker created the patches he uses on his Boss GT-100 and Roland GR-55 guitar synth. The GT-100 patches usually approximate more complex effects chains used on recordings, which would require many more pedals onstage. Some GR-55 patches used live also appear on *Currents* and other Tame Impala albums.

Sam Ash® GUITAR HEAVEN

THE REAL DEAL

Gibson
Firebird
Faded Pelham Blue
24 Payments of $79*

Gibson
Les Paul Traditional
Classic - Iced Tea
24 Payments of $84*

Fender
Tele Double-Cut
Butterscotch Blonde
24 Payments of $63*

Paul Reed Smith
30th Anniversary SE
Cherry Sunburst
24 Payments of $32*

ESP
40th Anniversary
See Thru Black
24 Payments of $46*

Fender
American Deluxe
3-Tone Sunburst
24 Payments of $71*

Gibson
Les Paul Studio
Manhattan Midnight
24 Payments of $52*

EVH
Striped Series
Eddie Van Halen
24 Payments of $42*

Charvel
Warren DeMartini
Signature Snake Pro Mod
24 Payments of $59*

Taylor
T3B
Semi-Hollow
24 Payments of $75*

Cordoba
GK Studio Limited Nylon
String Acoustic-Electric
24 Payments of $34*

Ibanez
9-String
Black Ice
24 Payments of $38*

Epiphone
Gary Clark Bigsby
"Blak & Blu"
24 Payments of $36*

Taylor
214CE SB
Sunburst
24 Payments of $53*

D'Angelico
EX63 Archtop
Vintage Sunburst
24 Payments of $63*

Jackson
JCS Special
Soloist SL1 Fighter
24 Payments of $125*

Gretsch
G6121-1955
Chet Atkins
24 Payments of $125*

Paul Reed Smith
30th Anniversary
Dragon
24 Payments of $813*

Speak to one of our experts today **1-800-472-6274 • SamAsh.com**

SPECIAL FINANCING

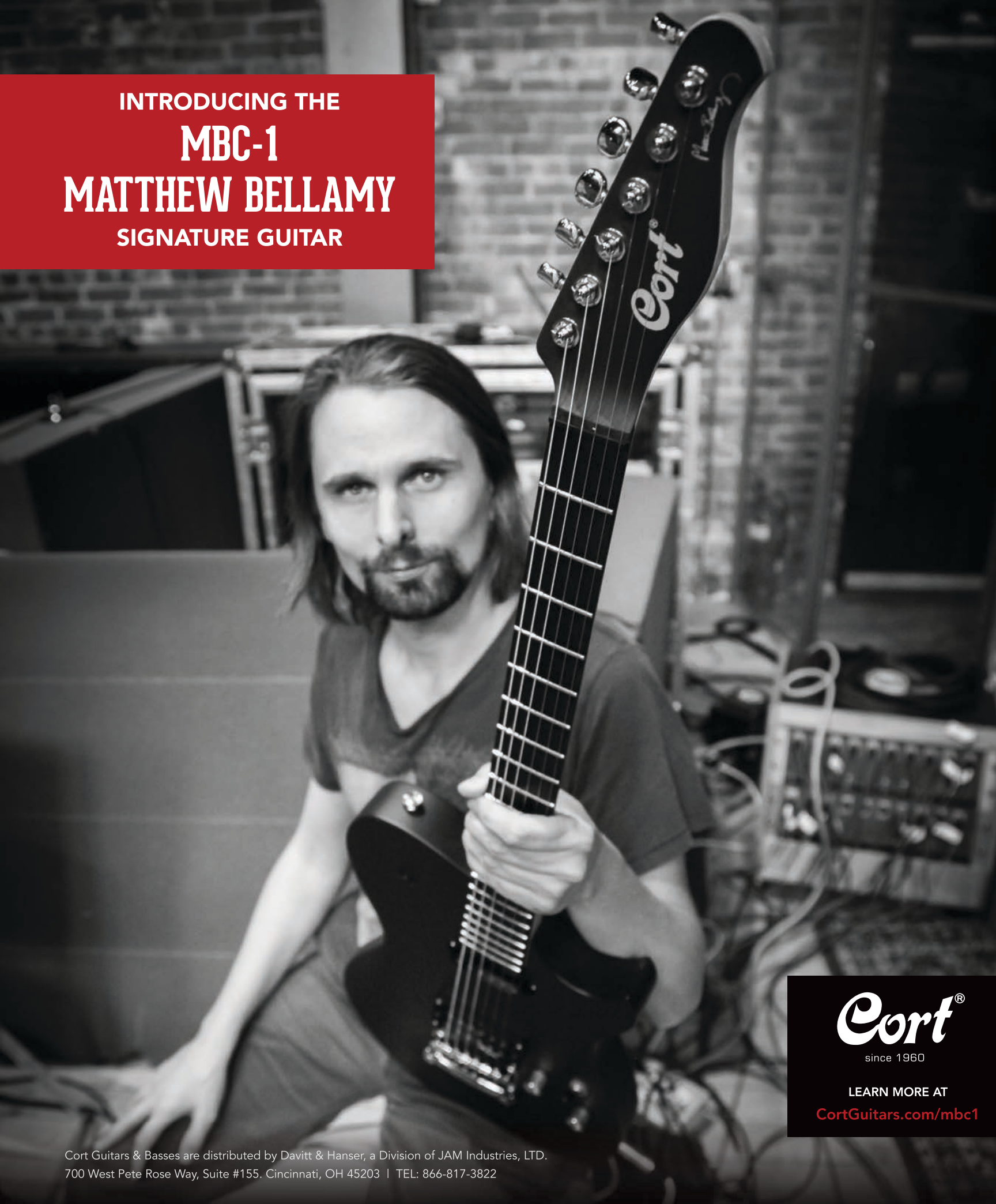
0% INTEREST for 24 MONTHS*

**On purchases of $299 or more on select producst from over 90 top brands when you use your Sam Ash credit card through 10/31/15. 24 equal monthly payments required. Visit SamAsh.com for details.*

Photo by Debi Del Grande

Besides his trusty Rickenbacker, Parker's other live guitar is a Squier J. Mascis Jazzmaster with a Roland GK-3 synth pickup, which belongs to Tame Impala keyboardist Jay Watson.

means I'm now much more flexible about which instrument I write on. But the instrument I write on might be the butt end of it. It's really just whatever is sitting around when I think of the song. The most important part is getting the song out into the real world before I forget it, rather than finding the right instrument to write it on. I'm just so worried that I'll forget the song, so I grab whatever instrument is closest, and that inevitably become the bones of the song. For whatever reason, I had a few more synths around me this time. And we were touring so much off of *Lonerism* that my guitar and pedals were usually halfway between one continent and another while I was at home. We'd finish one tour in say, Europe, go home for two weeks, and all our gear, including my guitars and pedals, would be on their way to South America. I didn't even have my favorite guitar, my Rickenbacker, with me a lot of the time, so that was a factor.


INTRODUCING THE
MBC-1
MATTHEW BELLAMY
SIGNATURE GUITAR
Cort
Cort®
since 1960
LEARN MORE AT
CortGuitars.com/mbc1
Cort Guitars & Basses are distributed by Davitt & Hanser, a Division of JAM Industries, LTD.
700 West Pete Rose Way, Suite #155. Cincinnati, OH 45203 | TEL: 866-817-3822

Tame Impala's Kevin Parker tunes a whole-step down from standard tuning (D–G–C–F–A–D).

What's the story behind your Rickenbacker? I haven't seen many photos of you performing without it.
Not in the last few years, for sure. I bought it in Japan a few years ago—must've been 2010—and it was the first real, vintage, *proper* guitar I bought. I have a mongrel Stratocaster that's got like a Mexican body and a U.S. neck, and my other guitar I got for Christmas when I was 15. The Rickenbacker a '67 335 model, and it sounds like nothing else. We travel with one of the reissues as well, which Dom [Simper] sometimes plays. But for some reason, those toaster pickups on the old ones just sing to me. Maybe they have less output than the new ones.

> **"The common thing with all the guitarists I respect and admire is they play the guitar as though it isn't a guitar."**

So you painted the body of a vintage Rickenbacker?
Sort of. I was actually more sensible than that: I laid down white gaffer tape on it in the shape of what I wanted and then painted over it. But I'm pretty sure that once I pull that gaffer tape, all the paint under there is going to come with it, so I effectively did deface it.

I appreciate that personal touch, even if it makes collectors squirm.
Well, I knew I'd never get rid of it. I've written so many of what I think are my best songs on that guitar, and it's been involved in everything I've done. I would never sell it in a million years!

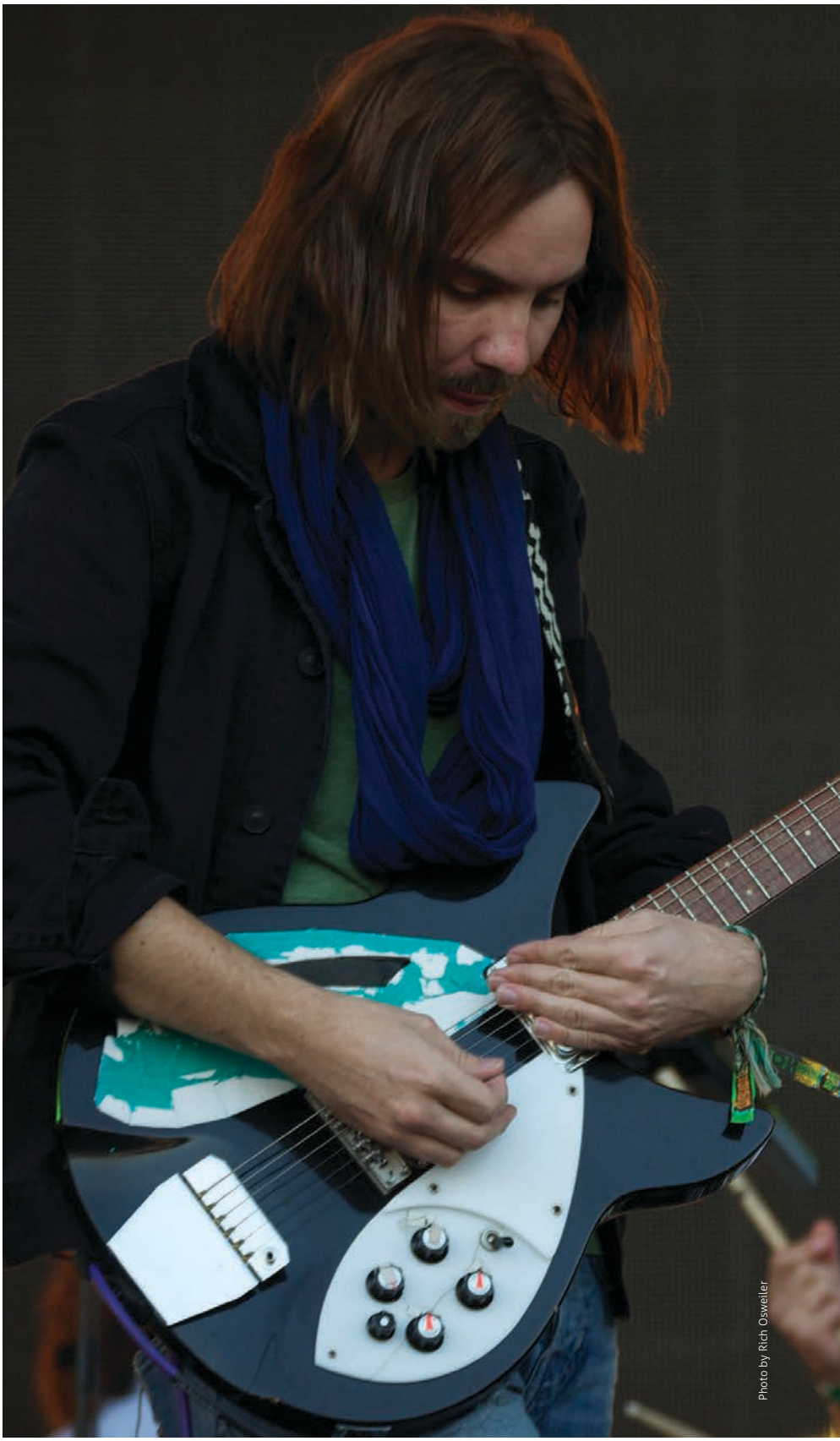


Photo by Rich Osweiler

I've just made it more mine, personalizing it like that. It belongs to me even more deeply because of the paint, you know?

The bass guitar takes a front seat on *Currents*. Who influenced your bass playing, and how you get that signature bass tone?

I guess it has a lot to do with my good old Hofner bass, which I actually bought in Japan at the exact same time as the Rickenbacker. I didn't even realize it until I got back to the hotel room and my friends were like, "Aw, so you bought the Beatles starter pack!" That sums up a lot of the Beatles references we get. It's all a total accident and coincidence. I usually just send the bass through my guitar pedal chain. I didn't have enough pedals to set up separate boards for guitar and bass. But it worked well, so I've stuck with it.

What's on your pedalboard?

Just a compressor, a vibrato, and a reverb. I often run the bass with reverb, which a lot of people don't, but I like what it does. There's also this Seymour Duncan [KTG-1] rack unit. It's a preamp, and I run *everything* through it. I've never been able to find another one, though I'd love to get one. I think they made them for a few years in the '80s or '90s. To everyone else they must sound really shit, because no one on the entirety of the internet seems interested in them. But I can't for the life of me find something that sounds the same.

Who influenced you as a guitarist?

You know what? I've thought about it before, and no one immediately sprung to mind. When I was a teenager, I loved Josh Homme from Queens of the Stone Age, Reine Fiske of Dungen. The common thing with all the guitarists I respect and admire is they play the guitar as though it isn't a guitar. A lot of the time when you pick up a guitar, your hands do the thinking, and it's just muscle memory. We've all got those blues licks we play almost automatically, you know? I try really hard to look past that. Sometimes I sing the melody in my head and try to play it on guitar, and I realize my hands really don't want to do that. My fingers

"My fingers would rather play it a different way, but I force myself to play it the way I hear it in my head until it feels natural."

would rather play it a different way, but I force myself to play it the way I hear it in my head until it feels natural. To me, that's what makes playing guitar unique to you—not just playing the kind of ZZ Top-esque licks that live in a lot of our fingers.

I've seen you perform on a Jazzmaster with a Roland synth pickup. How do you use it?

I used that a lot on the album, actually. It was a cheap shortcut to doing something I love: making a guitar sound not like a guitar. I've always been obsessed with tricking people into thinking that a guitar is actually a synth. I used to do it with octave pedals and different types of auto-filters and stuff, and then I'd play the instrument in a different way to make it sound like it's not a guitar. So when I started getting into guitar synths, it made it all too easy. It's a Roland GR-55, and a lot of the presets are totally nasty. They're almost stuck between a metal guitar and a saxophone. A lot of the presets Roland offers are terrible. But if you start from scratch building your own patches and then combine them with cool effects and outboard stuff, it starts to sound really cool.

YOUTUBE IT

Kevin Parker gets synth-heavy with his Rickenbacker 335 on "The Less I Know the Better" during a set at the Hollywood Forever Cemetery, one of the oldest graveyards in Los Angeles.
YouTube search term: Tame Impala The Less I know The Better Live Hollywood Forever 2015

There must be a lot more guitar on the record than is immediately apparent!

Absolutely. I spoke to a few people after they heard some of the new songs. Then they saw us play them live and they were like, "Oh! I didn't realize that was a guitar part!"

Could you point out specific instances of camouflaged guitars?

Well, for example, the instrumentation in the verses of "The Less I Know the Better" is *all* guitar synth. There are organs, pads—even the bass is going through the guitar synth. Other than the drums and vocals, everything you hear there is guitar synth, and it has this sort of '80s synth disco thing. The lead line halfway through "The Moment" is a weird, almost alien-sounding patch that's one of my favorite parts of the album. It's got this really crunchy, Himalayan-sounding lead.

I like that you went with a mountain range to describe the sound of a synth patch.

It just reminded me of standing on top of a mountain, so I figured I'd go with it!

THINGS JUST GOT REEL.

Introducing the new **Replicator Tape Echo** from T-Rex Effects.

The only 100% analog magnetic tape delay featuring tap tempo control. With two playback heads, as well as adjustable master level, chorus depth, and saturation controls. Plus all standard delay controls and a kill-dry switch. Hand made in Denmark, road-worthy and stage-ready. Don't just emulate. Replicate.

T-REX®

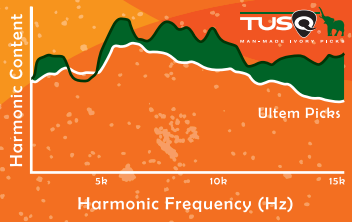
T-REX-EFFECTS.COM

TUSQ®
MAN-MADE IVORY PICKS

"I want to give you the BEST PICKS I've ever played. FREE for Life!"

ENTER HERE ▶ my.graphtech.com/randy

RANDY BACHMAN
Founding Member of:
The Guess Who, Bachman Turner Overdrive



TUSQ Harmonically Rich Picks are the world's first picks with built-in tone.

3 Shapes, 3 Gauges, 3 Tones.

Learn more about TUSQ Picks at www.graphtech.com/picks15

Check Out Randy's New Album
HEAVY BLUES
"A satisfying white-knuckle ride from start to finish"
- Vintage Rock

Get it on iTunes

Delivers Pure Inspiration
—Pro Audio Review

H9
Harmonizer®
Effects Processor

The award-winning H9 delivers Eventide's signature reverbs, delays, chorus and pitch-shifting effects from the acclaimed stompboxes: TimeFactor, Space, ModFactor and PitchFactor.

Learn more at **eventide.com**

Guitar Player EDITORS' PICK
PG PREMIER Guitar PREMIER GEAR
GUITAR WORLD PLATINUM AWARD

Eventide®

Eventide and Harmonizer are registered trademarks of Eventide. © 2015 Eventide Inc.

Photo by Andy Ellis

IN THE ZONE

BY ADAM PERLMUTTER

Fingerstyle sensei Tommy Emmanuel describes how he approaches playing solo acoustic guitar and what it took to make his childhood dreams come true.

Most acoustic guitarists can do a little Travis picking—the syncopated fingerstyle approach pioneered by the legendary country guitarist Merle Travis—but few are inventive enough to use this technique as the foundation for new work. Chet Atkins was one of these players, as is Tommy Emmanuel, the Australian virtuoso and one of only five guitarists Atkins honored with his "Certified Guitar Player" award.

Now 60, Emmanuel has been a professional musician since the age of 6, when he and his siblings, under the direction of their father, began living out of a station wagon and playing in informal touring bands. Later Emmanuel emerged as a top-shelf session player in his native country. His electric-guitar work can be heard on albums by such Aussie rock groups as Air Supply and Men at Work.

But Emmanuel's first love was fingerstyle acoustic and in recent years he's developed a body of work that blends country, folk, pop, and jazz in the most tasteful—and often awe-inspiring—ways. In no situation is Emmanuel more impressive than when playing solo as a virtual one-man band. And so it's a real treat that Emmanuel's latest album, *It's Never Too Late*, is his first new record of solo pieces in 15 years.

Speaking via Skype while kicking off a tour in Australia, Emmanuel examined his musical life for us, including his deep connection to Atkins. And, being fiendishly devoted to the guitar, he couldn't help but pick up one of his Matons to demonstrate some of the inner workings of his music. (**Bonus:** Head online to hear audio excerpts of Emmanuel in action!)

To hear audio excerpts, head online to premierguitar.com

Tommy Emmanuel plays one of his much loved Maton signature acoustics—which is nicknamed "Yellow Mouse"—at a Jerry Reed tribute show at Nashville's Cannery Ballroom on June 11, 2015.

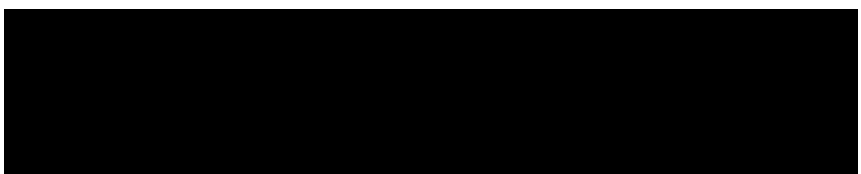
There's such a wide roster of influences apparent in your playing. What first inspired you to take up guitar?

I started playing because my mother was playing music and I wanted to as well. So she bought me a little guitar for my 4th birthday and that got me started. My brothers and sisters took up instruments at the same time and before long we were a band. My first musical influences were country: Hank Williams, Jimmie Rodgers, Hank Snow, Jim Reeves—that's what played in my house. I heard Chet Atkins on the radio. He was my biggest inspiration when I was young, and he changed the way we all listen to music.

Then there were Les Paul, Merle Travis, Duane Eddy, and of course also Buck Owens and Merle Haggard. I listened to all their records, and I learned as much as I could from players like James Burton and Roy Nichols. During my teens, I listened mostly to Don McLean, Gordon Lightfoot, Carole King, Neil Diamond, and other singer-songwriters. I just kept an ear out for all the good songs. I was really interested in what I could learn from the songs and how I could become a songwriter myself. Later on I discovered jazz, classical, and R&B. I like all kinds of music and I always have.

Tell us about some of those good songs.

Hank Williams and Jimmie Rodgers were my first big influences—I learned all their songs. Merle Travis with "Nine Pound Hammer" and Doc Watson with "Deep River Blues" were big as well. I listened to a lot of Tony Rice's stuff back in the '70s. And, of course, along the way came Larry Carlton and Lee Ritenour and people like that. I bought all their albums and tried to steal as much as I could. Like everyone else, I checked out jazz guitarists like Wes Montgomery and Django Reinhardt. I got into classical for a while and listened to Julian Bream and Andrés Segovia, and also Paco de Lucía, who were such an inspiration to me, and to this day, probably the best guitar player I've ever witnessed.



Emmanuel has been playing guitar since age 4 and was a working musician by age 6. His guitars of choice are his custom Matons, made from indigenous woods in his native Australia.

You became a professional at age 6. What was that like?
It was a lot of fun because being a kid you didn't notice all the hardships so much. I'm sure my parents did, dragging six kids around the country and trying to make a living. A lot of times I'm sure my mother had to perform a miracle to pull a meal out of the air. But for us it was fun—we enjoyed playing music and we met a lot of kids our age along the way, played games and went fishing, that kind of stuff.

What have you taken from those years?
It was a good start to my career, that's for sure. I learned how to work hard and get out there and play, no matter how I was feeling. And things are a lot better now obviously. I'm actually living the dream I had back then when I'd fantasize about touring the world, playing in beautiful halls. I kept my dream alive and eventually got there. I'm still working like crazy at it, but it's extremely fulfilling and challenging for me. It keeps me pumped about what I'm doing.

Given that guitar instruction wasn't nearly as accessible in your formative years as it is now, how did you learn to play in your signature contrapuntal style?
When I started, there was nobody around who could explain what Jerry Reed and Chet Atkins were playing, so I had to figure it all out by ear. I'd get the record, stack coins on it to slow it down, and try to work out some of the more complex parts. There were some books—*Chet Atkins Note-for-Note* and *Jerry Reed Heavy Neckin'*—but I couldn't read the music notation, so I looked at the photos and that's about it. I had to work it out myself.

Every now and again I'd run into someone who had figured out more than me and I'd say, "How does that go?" and they'd show me. I'd always love it when I'd run into guys who were much more advanced because we'd stay up all night showing each other stuff.

Did you have any light-bulb moments in your musical development?

One time there was a young Australian guy who was a good reader. He had the book of Jerry Reed songs and he showed me the right fingering for a song called "Mister Lucky." It was complex, and I just couldn't figure out half the chords. It was one of those things where the bass went like this [*plays the piece's descending bass line*] while the melody moved independently. [*Plays the bass line and the melody simultaneously.*] Those were the kind of moments I'll never forget.

What was it like to encounter Chet Atkins, your hero, for the first time?
It was 1980 and I made the pilgrimage to Nashville from Sydney, where I was living in those days. I called Chet in his office and told him I was in town, and he said, "Well, come down, I'll see you right now." So I jumped in the car and raced down to his office. As he came down the stairs, he said, "Do you wanna pick a little?"

So we went into a room, and I started playing "Me and Bobby McGee." He watched me for a while and then just jumped in. He went straight to harmonies and little fills, and then took a solo. It was just like we'd rehearsed it—it was so perfect against what I was doing. That was an amazing feeling. When I watched him play, I saw all the experience and practice in his hands. It was one of the most beautiful things you've ever seen—just watching his hands move around, like watching Fred Astaire dance. Beautiful.

In 1997 you realized a dream when you released an album with Atkins—*The Day Finger Pickers Took Over the World*. How did that collaboration come about?
In '95 I came to Nashville to do a showcase for the CMA week, and I also played two shows at a place called the Ace of Clubs. Chet came down the first night

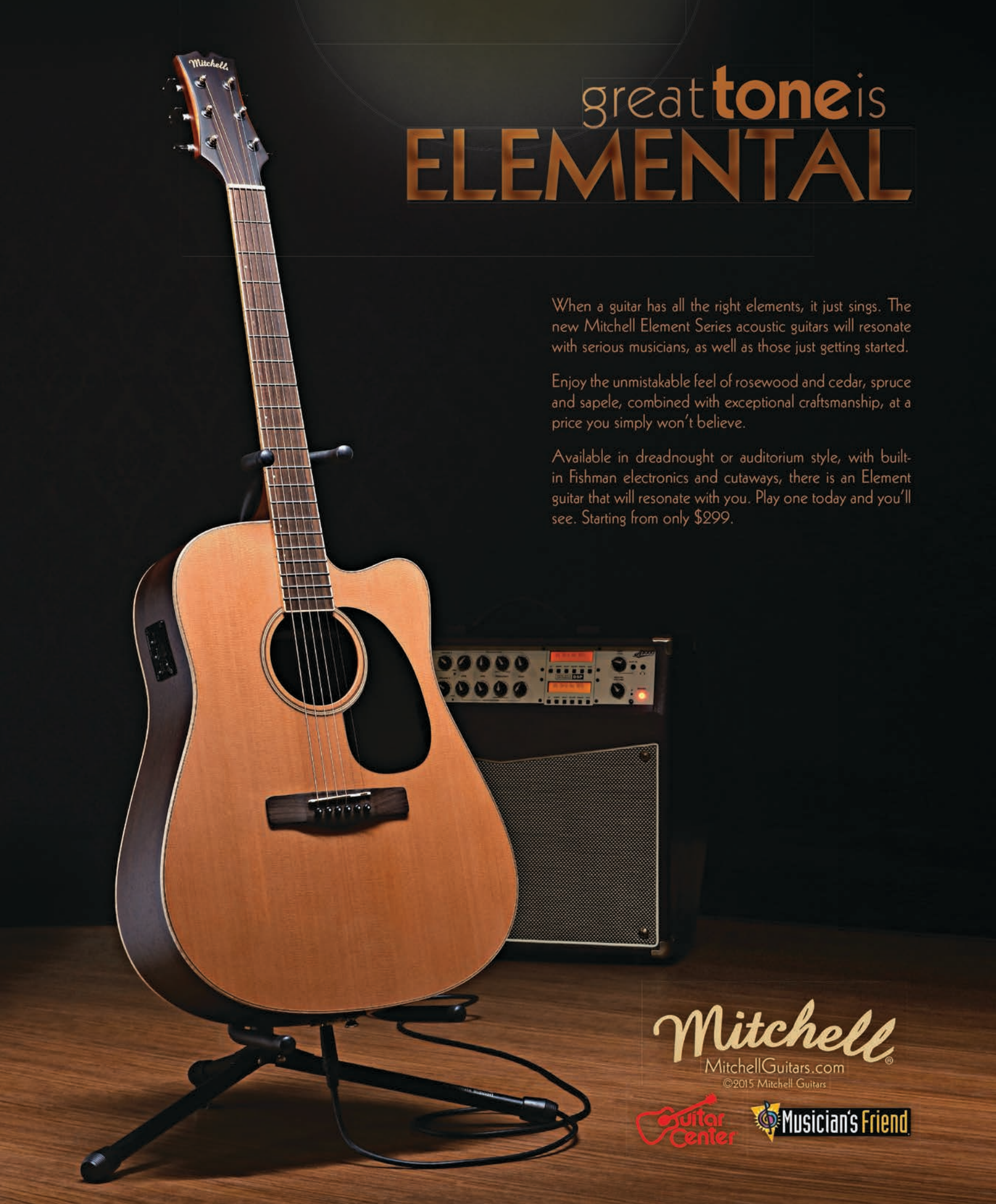
TOMMY EMMANUEL'S GEAR

GUITARS
Maton EBG808 "Yellow Mouse"
Maton EBG808 "Orange Mouse"
Custom Larrivée "The Boss"

AMPS & EFFECTS
AER Compact 60
AER Pocket Tools Colourizer

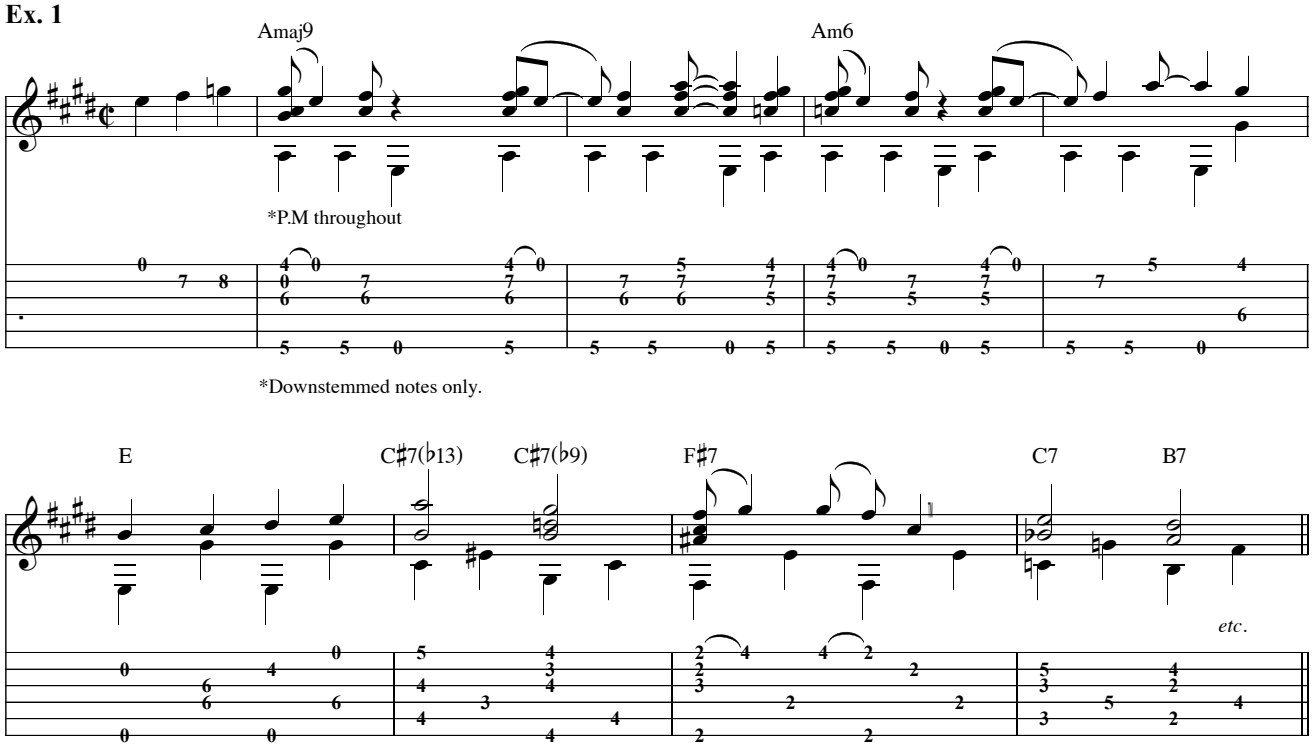
STRINGS & ACCESSORIES
Martin SP Flexible Core (.012–.054)
Jim Dunlop medium thumbpicks
Kyser Quick-Change capos

Photo by Jamey Firnberg


great tone is
ELEMENTAL
When a guitar has all the right elements, it just sings. The new Mitchell Element Series acoustic guitars will resonate with serious musicians, as well as those just getting started.
Enjoy the unmistakable feel of rosewood and cedar, spruce and sapele, combined with exceptional craftsmanship, at a price you simply won't believe.
Available in dreadnought or auditorium style, with built-in Fishman electronics and cutaways, there is an Element guitar that will resonate with you. Play one today and you'll see. Starting from only $299.
Mitchell
MitchellGuitars.com
©2015 Mitchell Guitars
Guitar Center
Musician's Friend

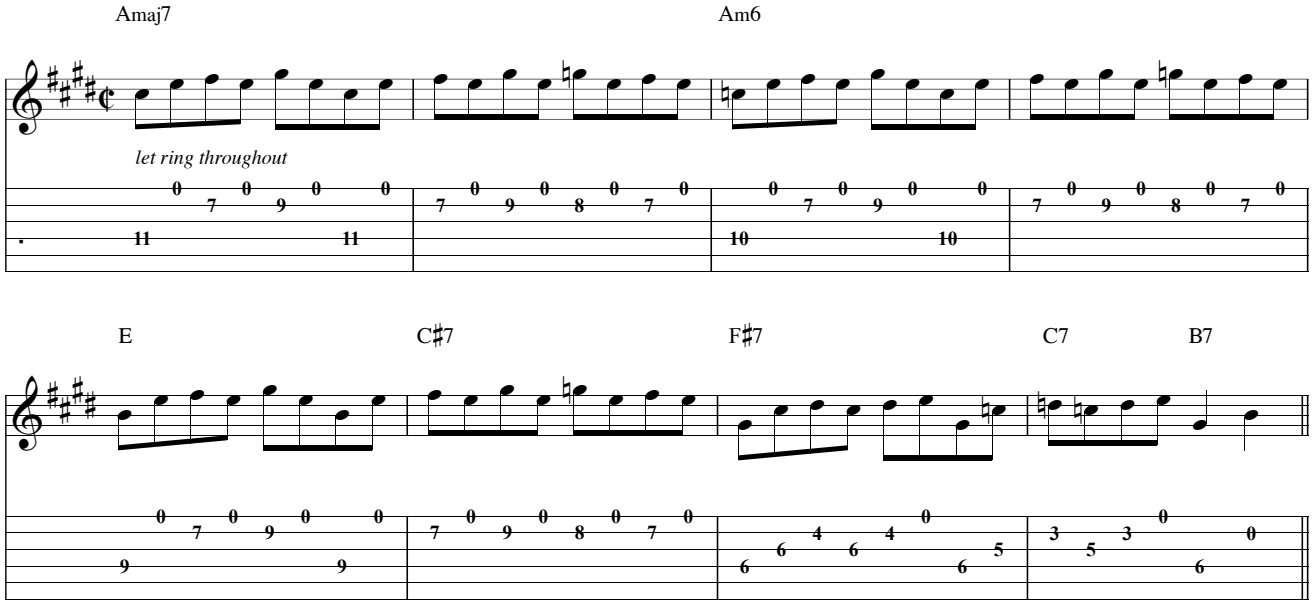
A Mind-Bending Fingerstyle Workout

Ex. 1



Tommy Emmanuel's "The Bug," which he thinks of as a never-ending song, pairs a looping jazz-inspired chord progression with Travis picking (**Ex. 1**). Palm-muting the bass notes helps give the piece a driving feel. Though Emmanuel frets the 6-string A notes with his thumb, alternatively you can play them on the open 5th string. Visit premierguitar.com to hear Emmanuel play this and the following two examples.

Ex. 2



An intriguing variation on the main theme of "The Bug," **Ex. 2** is a neat picking pattern that includes an open-E common tone between the chords. Try plucking the 4th-string notes with your thumb and the rest with your other fingers, and let all the notes ring throughout. *Continued on p. 78*

to see me play and he was really encouraging and excited about the whole thing, and he made sure the record company came down the next night. They were pretty knocked out with how everything went, and about a week later when I was back home, Chet called and said, "Well these Columbia people really like what you do and they think we should work together. Would you like to do an album?" After I picked myself up off the floor, I immediately started writing songs. I played them over the phone to Chet, and he liked them all, so they ended up on the album. I had the dream experience of writing and playing with Chet, and recording and producing the album. We even got nominated for a Grammy.

After that, we decided to work together in a very serious way and hired a publicist. We got a schedule together, and we were about to go to Leno and Letterman and all those shows. But unfortunately we had to cancel everything because they found a tumor in Chet's brain and he had to go have an operation. When he came out, his motor skills were diminishing by the day. And so sadly, that never had a chance to take off and come to fruition.

Anyway, I'm out here doing my best to honor Chet and others who came before me, and to keep this style of playing alive by bringing it to the younger generation. It's so fantastic that there are young players everywhere around the planet—China, Malaysia, Japan, Russia, Poland, you name it. All around the world there are young pickers just going for it.

It must be wild for you to hear those players.

Yeah, there are a lot of young players who would surprise the heck out of you—they're a lot more advanced than you can ever imagine. A lot of this is because they've got their fingers on technology. If I play a song in a concert and someone films me, it's on YouTube that night and there are four other versions by 6 a.m. That's how it works these days!

If this technology had been available when you started playing, how would it have affected your music?

Maybe I'd be more influenced by somebody like Andy McKee, if I were a young person, because there's a lot more of that style now on the internet. But I can't imagine playing any other way than I do because my music is me and I am it. When I play, it's my signature. That's my sound, my voice, and I don't try to stray from it in any way. It took me a long time to develop that voice, so I just try to stick at it. Otherwise you end up sounding like a hybrid version of 100 people.

We all develop a particular style at a young age, I think. But then it gets refined, the more information you take in and the more you put out. All of a sudden you've become a channel of ideas and flow. I remember when I first heard Chet Atkins' early stuff, I could hear Merle Travis as much as I could hear Django Reinhardt. But when Chet played one of his own tunes, there was *his* sound. There was his distinctive style and his signature licks.

You realize that all guitar players have these things in their DNA. I remember the first time I played for Jerry Reed. I did a couple of songs and he said, "You didn't learn that—you were born with it." It's an interesting statement because somehow it does in fact feel like the music has always been there. It's almost like it leapt on you, not that you discovered it—like it's been in the air and you've just finally breathed it in and now it's come out of your fingers.

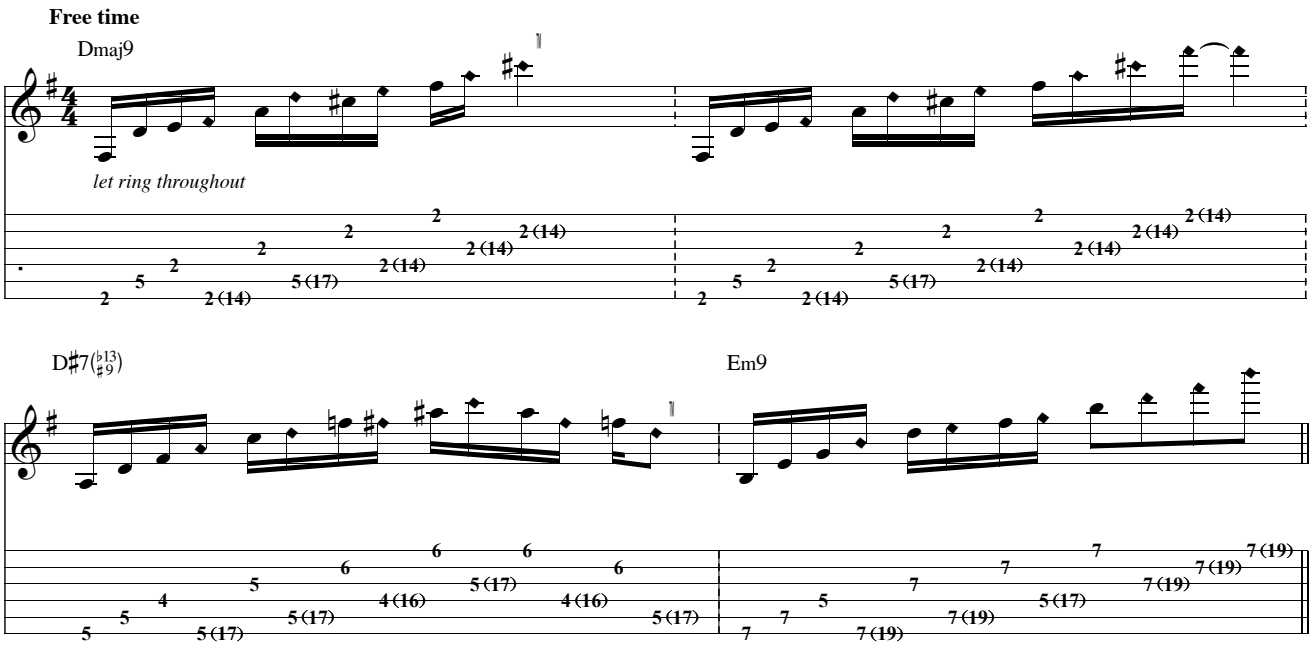
The compositions on *It's Never Too Late* have a lived-in feel.

I wrote the songs over a period of time. I didn't really set time aside to write because I've been as busy as a one-armed fiddler in the last couple of years. The title track, for instance, I wrote last December when I was on tour in Poland because we were about to have a baby. My daughter Rachel was born in January of this year, and that's her song.

A lot of the other songs were written in my travels. Of course, traveling itself is such an inspiration for me. I wrote a song called "Traveling Clothes," which is on the album. When you travel as much as I do you figure out the right kind of clothes for feeling comfortable. I also thought, what if my clothes could talk and tried to tell the story about where they've been? [*Plays an excerpt from "Traveling Clothes."*]

The song has a lot of movement. It's pretty much written in the style of Alison Krauss & Union Station—that kind of big melodic sound I really love. I tried to find passages where I could play a vocal-harmony type of sound. When it's not so guitar-oriented, that makes you sound different from other players. I often write an instrumental as if I'm going to sing the song.

Ex. 3



Emmanuel is known for his masterly use of harp harmonics, a technique he borrowed from Chet Atkins and Lenny Breau. Like Atkins and Breau, Emmanuel pits the harmonics against fretted notes to create beautiful cascading effects. To play **Ex. 3**, keep each chord shape fretted for one bar, and for the harmonics, gently touch the string 12 frets above the fret-hand note (at the fret indicated in parentheses), while plucking the string with your thumb. Once you've got this figure down, see if you can extend the idea to some of your own favorite chord voicings.

You've got an uncanny way of taking the Travis approach to new places, like on "The Bug."

I'm glad you mentioned that because the song's about my wife—The Bug is her nickname. She's old-fashioned, which is a real beautiful quality, and that's why it's in an old-timey style. I tried to write something that's full of life, like she is. I call it the never-ending song because it never resolves. [*Plays the main theme to "The Bug," transcribed in Ex. 1.*] And then to play over those chords I found this … [*Plays a variation on the theme—see Ex. 2.*]

What a lovely progression. How did you develop such a sophisticated sense of harmony?

I don't think it's that sophisticated—have you ever heard of Lenny Breau? [*Laughs.*] Now that's sophistication! I just try to write things that please my ear. I'm always trying to look for ways of doing harmonies that are a little different from what you'd expect from a guitar player. Like for instance, when I did an arrangement of [the Burt Bacharach song] "Close to You," I found sounds that are unusual. [*Plays a chord-melody version of "Close to You" with extensive chord substitutions.*]

What I really want to do is surprise you, the listener, with things that tickle your ear, so I found a way of making things sound unexpected and unresolved. If everything sounds too sweet, then after a while, it all sounds boring. You've got to do things that keep the music interesting.

There was an old song—it's probably long before your time—I recorded on an album a couple of years ago. Called "Secret Love," it was originally done by Doris Day. I found a way to play the melody in natural harmonics. [*Plays the song's A section.*] And then when the bridge comes around I do this ... [*Plays a passage with thorny harmonies and harp harmonics.*] It took me a while to find those chords, but I knew they were there.

How did you find them?

I find where the melody is first, and then I just go looking for those shapes. I have to practice to make the melody flow well, while keeping the backing underneath and making it all fluid. I try to think of it like

I'm singing, keeping the melody moving but at the same time offering those little musical surprises, which are the unresolved chord sounds.

Speaking of Lenny Breau, you really use those harp harmonics to excellent effect.
That's a sound I first heard from Chet Atkins, and Lenny really perfected it. I use those sounds a lot—there's this group here. [*Plays a colorful progression using harp harmonics.*] I just go looking for shapes that musically make sense and have an intriguing sound. Chet did a version of "Somewhere Over the Rainbow" on his album *Chet Atkins Goes to the Movies*, from around '76. On the intro, the bass guitar plays the melody while Chet plays those beautiful harmonics.

I worked those out when I was young and just kept working on it. Every now and then I go looking for new stuff, new shapes and sounds. But it's the same technique, a combination of harmonic notes and fretted notes as well, the two together creating that beautiful harp-like sound.

What guitars did you play on the record?
Mostly my custom Maton guitars, two signature-model EBG808TEs, which are made in Melbourne, Australia. They're made from indigenous woods—maple from the northern part of Australia, which has a lot of the qualities of mahogany, actually, with a deeper sound than U.S. maple.

I used those two guitars for most of the tracks, though on a couple of songs I played my Larrivée, which Jean Larrivée gave me a long time ago. It's a cutaway with a neck that meets the body at the 12th fret, though I couldn't tell you exactly what model it is. It's got rosewood back and sides and a bear-claw spruce top. That guitar is a *cannon*—it's a wonder.

The guitars sound very natural on this album. How did you record them?
I didn't plug in or use any electronics. I just put one mic—an old Neumann from the '50s— in front of the guitar, found a good spot, and there it stayed.

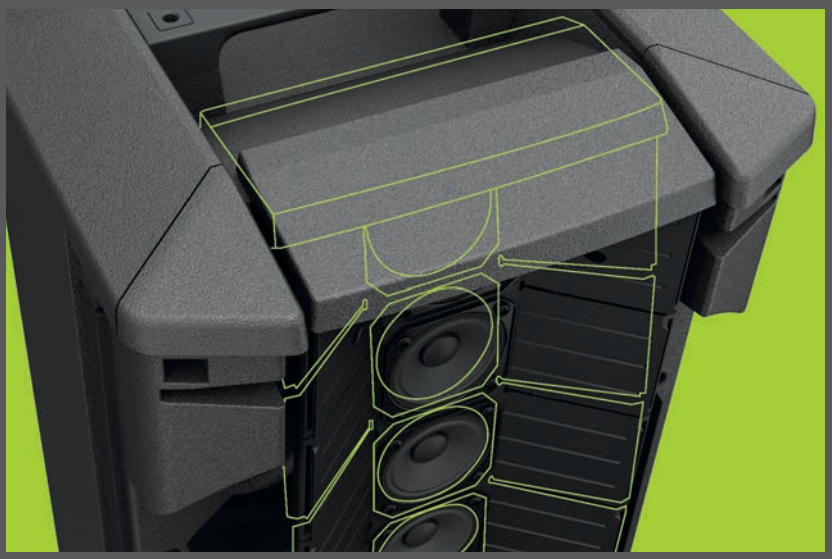
In general, I don't spend a lot of time recording—in fact, I wish I had more time for recording. A lot of times I write the songs, play them live to make sure everything is working, and then go into the studio for a day or two and pretty much get everything done. I try to play as if before an audience. To be playing guitar in front of a mic while wearing headphones—that's the zone for me. I enjoy it so much and it really brings out the best in my playing when I can listen and examine what I'm doing, as I'm going.

Getting back to the title track, have you played it for your new daughter?
Yes—I love playing for Rachel and she loves music. She already knows her song. As soon as she hears it, she gets this look on her face. It's the best thing in life, it really is.

Michael Tobias Design
Celebrating 20 years
mtd
Built for the working musician
Superior Quality
Incredible Tone
Patrick Scheel is playing a Rubicon 22 Fret Guitar
www.MTDKingston.com
USA Custom and Kingston Production Basses & Guitars

SHAPE YOUR SOUND

Bose® F1 Model 812 Flexible Array Loudspeaker



1 speaker. 4 coverage patterns.

STRAIGHT J REVERSE J C

Introducing the first portable loudspeaker that lets you easily control the vertical coverage – so wherever you play, more music reaches more people directly. The Bose F1 Model 812 Flexible Array Loudspeaker's revolutionary flexible array lets you manually select from four coverage patterns, allowing you to adapt your PA to the room. Plus, the loudspeaker and subwoofer provide a combined 2,000 watts of power, giving you the output and impact for almost any application. Your audience won't believe their ears.

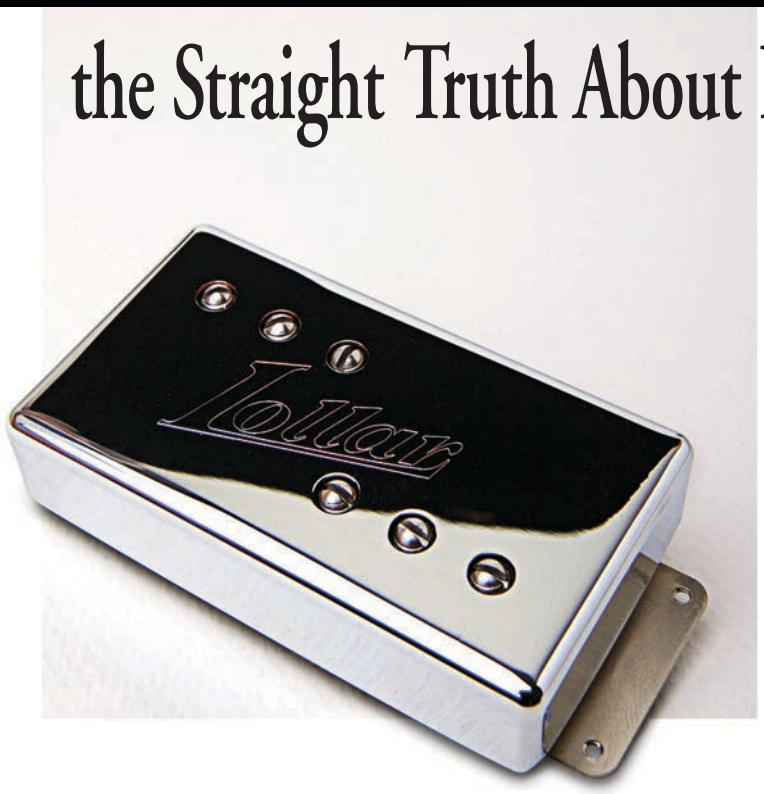
Bose.com/F1

©2015 Bose Corporation. CC017045

BOSE
Better sound through research

LOLLAR PICKUPS™

the Straight Truth About Pickups by Jason Lollar



Yes, we're still chasing the dragon. It's been on my list of "great pickups I've always wanted to build" forever, and took several years to design — my new Lollar "Regal" humbucker.

Based on the classic "wide range" (but with a few twists of my own), it's fat and clear, with a nice top end sparkle. Great note bloom and a vocal midrange that never sacrifices note definition. Same size as the original — drop it in and turn it up.

I personally design and wind over a hundred different pickup models including most of the vintage classics, obscure works of art from steel guitars to clavinets, and even a few of my own designs that have never existed in the past.

I invite you to visit our website for sound clips, videos and current product information or feel free to give us a call.

Lollar Pickups, Tacoma, WA. (206) 463-9838 www.lollarguitars.com

From cranked, slightly dirty amp tones to a furry Godzilla devouring a junkyard full of broken A/C units.

carolineguitar.com

GHEFFECTS.COM

the Sonic Orb is whispering to you...

GREENHOUSE EFFECTS

ROCK 'N ROLL MIND-CONTROL

A WILDLY VERSATILE ANALOG PHASER

Reunited, Relevant—Refused

Kristofer Steen of Swedish hardcore quartet **Refused** confronts—and conquers—the comeback stigma as the revered band's latest LP hits charts.

BY CHRIS KIES

Fans had been begging for it since 2004. They wanted metal-fused, hardcore band Refused to think about that dreaded r-word. Sure, reunions—even the ones where you have to congregate with distant relatives and blood-tied strangers in the dead of summer—can be a good thing. But reconnecting and celebrating the past doesn't move people forward. No, the gents from Sweden were striving for another r-word—relevant.

"We enjoyed celebrating our past during recent years," says guitarist Kristofer Steen, "but we're really reenergized with the release of *Freedom*. We're finally able to look forward rather than back in remembrance of things we did decades ago. We feel relevant now. We're sharing our new music with fans at shows. As a band, we feel alive again."

When we recently caught up with Steen before a Refused gig in Toronto, he opened up about the band's history, explained why he loves both Gibson ES-335s and Les Pauls, and revealed what crucial advice he'd give his younger self.

How have the crowds been reacting to the new music on *Freedom*?
We knew going into the new record that it'd probably be a hard sell for the hardcore fans from the '90s, or fans that only like a particular side of Refused, but we've never really been concerned with outside opinions. With any type of art, you can't do it for anyone else or it feels forced or generic. I'm sure we've lost some fans who were really into *The Shape of Punk to Come*, but hopefully we've gained a few more with the release of *Freedom*.

What was your goal with the new music?
Well, I honestly thought—and I really got excited about the idea of it—the album would be very polarizing. People picked apart *Shape* when it came out, and I think when things *are* polarizing, you're doing something right. So if anything, we wanted to surprise our audience and maybe make them question our musical decisions.

Given the 17-year gap between your last two albums, is there anything you hear in *Freedom* that was lacking in 1998's *The Shape of Punk to Come*?
I'd say, probably a musical maturation. *Shape*'s dynamic shifts were very black and white—loud to quiet on a drop of a hat—and we wanted to have more building, brooding parts on *Freedom* to strike a more dramatic tone. We've already done *Shape* and it was something we collaborated on 17 years ago, so it's inevitable we'd deviate from that formula.

One of the motifs in the documentary you directed, *Refused Are Fucking Dead*, was how the pressure you guys dealt with internally ultimately contributed to the band dissolving in the early 2000s. Was there any pressure around *Freedom*, given the unusual circumstances with the long hiatus and surprising return?
Any pressure we felt during the process of creating *Freedom* was put on us by each other—we don't worry about what other people think. Our fans are pretty diverse in what they like about our band. Some might like the high tempo, aggressive parts, whereas others might like the slowed-down, melodic journeys or our experimentation with flutes and cellos. It was actually quite liberating to write whatever we wanted and know it'd be received as Refused. Plus, we expect people are going to be annoyed with certain parts or changes to our music, and it gets us off a little [*laughs*].

What broke the ice and got you guys talking again and ultimately onstage in 2012?
Well, it was definitely a long process. David [Sandström, drummer] was pretty much on friendly terms with everyone, so he was the social anchor for the band. Let's be clear, there was never any bad blood, but we never really collectively hung out or spent time together after the breakup. Fast forward to about six or seven years ago, when we started receiving offers from tour promoters and festival organizers—it really messed with our heads.

How so?
Before that we never really felt the groundswell of anticipation or eagerness to have a reunion tour or do shows, but after seeing some of the offers we got, we got inflated egos and got enticed by the dollar sign … it just wasn't us. Our initial reaction was to be flattered, but then we were insulted—as if we could be bought out. When you have those dollar signs looking at you, it can cross up your values.

How did it feel to make a film about your band dissolving in front of the camera?
Honestly, I approached it as a eulogy [*laughs*]. That's pretty dark, but I wanted to show that *any* group of musicians—in our case, it was five normal guys from Sweden—can have an impact on the musical landscape. The feeling of the film is very dramatic and serious, but that was who we were as people back then. We were only focused on the music and the message. Nothing else really mattered or was even on our radar.

At times I had to detach myself and remember I was the director, but at other times, I had to realize I was the guitarist for this band. It was a tough line to walk. I think we all felt it was a good exercise because a lot of the interviews were shot during our final tour, so even then we felt a sense of impending doom and finality to the band. We were like a cult. Even off the road, we only hung out with our bandmates and crew—it became insanely claustrophobic. By the end, we had no oxygen.

If you could reach back to 1998, what would you tell your younger self?
Oh man, I don't know if he'd listen to me, but I'd probably say, 'Chill out and just relax—everything doesn't have to be *that* serious.' Back then, we had some serious delusions of grandeur. That said, I don't know if we could've created *The Shape of Punk to Come* if we hadn't been angry, serious, fed up, and looking to lash out.

We needed to not give a fuck because otherwise we would've never put cello, horns, flute, or samples on a hardcore record. We were pretentious as hell [*laughs*]. However, the success of the album and the empowering idea of flying the finger in front of musical convention helped lead to our internal demise.

Lerxst^{x}

BY ALEX LIFESON OF **RUSH**

"I've used more amps than Dr. Frankenstein did breathing life into his creature, but the ***Lerxst Chi*** *is an awesome monster in its own right and one of the sweetest sounding amps I've ever heard. All the great character of the Omega in a cool, compact package that you don't have to be a seven foot monster to carry around."*

15 Watt 1x12 Combo

LERXSTAMPS.COM

Refused guitarist Kristofer Steen lays into his '90s Gibson Les Paul Custom at the Ricoh Coliseum in Ontario, Canada, on August 7, 2015.

KRISTOFER STEEN'S GEAR

GUITARS

2000s Gibson ES-335
1990s Gibson Les Paul Custom
1990s Gibson Les Paul Traditional
2000s Fender Stratocaster

AMPS

Vox AC30
'80s Mesa/Boogie Mark III combo
'80s modded Marshall JCM800
'50s Fender Twin
(previously owned by Eric Clapton)

EFFECTS

Boss BD-2 Blues Driver
Mad Professor Royal Blue Overdrive
MXR Phase 90
Dunlop Cry Baby 535Q

STRINGS & PICKS

.010-.048 sets, any brand
Dunlop Tortex 1.14 mm picks

When did the music start to happen again?
After we got those intriguing offers from festivals and tour promoters, David and I decided to start jamming. Not in a Refused or reunion context, but just to play guitar and drums together because we wrote a lot of the band's material and we have a musical bond. I ventured up to his place and we started out playing really, fast, aggressive, thrashy Slayer-type songs. We had an absolute blast.

After a few jams, I asked him if he wanted to try something a little different, and he was really excited to hear it. What we fleshed out that day turned into "Elektra," our first single. We probably came up with that four or five years ago.

The whole process was really organic. Had it felt forced, I don't think I'd be sitting here talking to you about Refused or *Freedom*. I remember having a conversation with David while on our North American reunion tour in 2012. We acknowledged that all the time we'd spent playing together back in Sweden, when we thought we were jamming heavy, thrash songs for a new project, we were really writing Refused material. After that conversation in Toronto we actually went and wrote, "Thought is Blood," for the new record, too.

Since David was in touch with everyone, did he let them know you guys were rocking out again?
Well, I had told our original bassist, Magnus Flagge, that David and I were working on something different together. Later that day Magnus texted me and said he'd just bought a new bass and wanted to jam with us. I remember thinking that I never really asked him to be in the band [*laughs*], but we got together and it was just three old Refused members hanging out and playing like old times.

A few years later Coachella came knocking again and the three of us had been jamming and rebuilding our chops, so it felt much more doable and not so desperate. Plus, we really felt this second-generation chemistry, so we just wanted to get out there and perform. We got Dennis [Lyxzén, singer] back into the mix, and we just figured, why not? So once we played a few festivals, it was obvious to us all that we should write a new record because we had so much fun performing the old stuff, but we truly enjoyed being around each other again. That re-bonding environment was really beneficial in creating *Freedom* and catalyzing the comeback. The money's nice, but it's not worth it if you hate what you're doing or whom you're doing it with.

Photo by Igor Vidyashev/Atlasicons.com

delay

DOPPELGÄNGER

Effortlessly create your own world of intricate and synchronized echoes, along with hypnotic and atmospheric repeats that blur the line between delay and reverb.

DIG unearths the true soul of digital delay and doubles it—two simultaneous, integrated delays with the captivating rack delay voicings from the 1980s and today, for incredible expressive potential.

strymon.net/dig

strymon®

Before the most recent reunion you were pretty loyal to Gibson Les Paul Customs, but when I saw you this May in Chicago you were playing an ES-335. Why the change?
No joke, I'm playing the Customs again.

Well, what did you like about the 335?
I really enjoyed its sound—especially live. I recorded mainly with the Customs and other solidbody guitars, but when I feel like fighting, I'll bust out the 335 onstage because that's where it comes alive. It howls, screeches, barks, and gives me everything the Les Paul can and *more* sometimes. It has a full, thick, rich tone that is just a different flavor than the Customs.

A lot of our music has really fast, dynamic tempo shifts and tight breaks, so the Les Paul is great for recording because you can get really quiet, really fast, whereas tracking with a 335 in our style of music causes things to sound sloppy or me to miss my cues because of its feedback. But when I play the 335 live, I really feel the extra noise and howling adds to the chaotic frenzy we produce onstage during a performance.

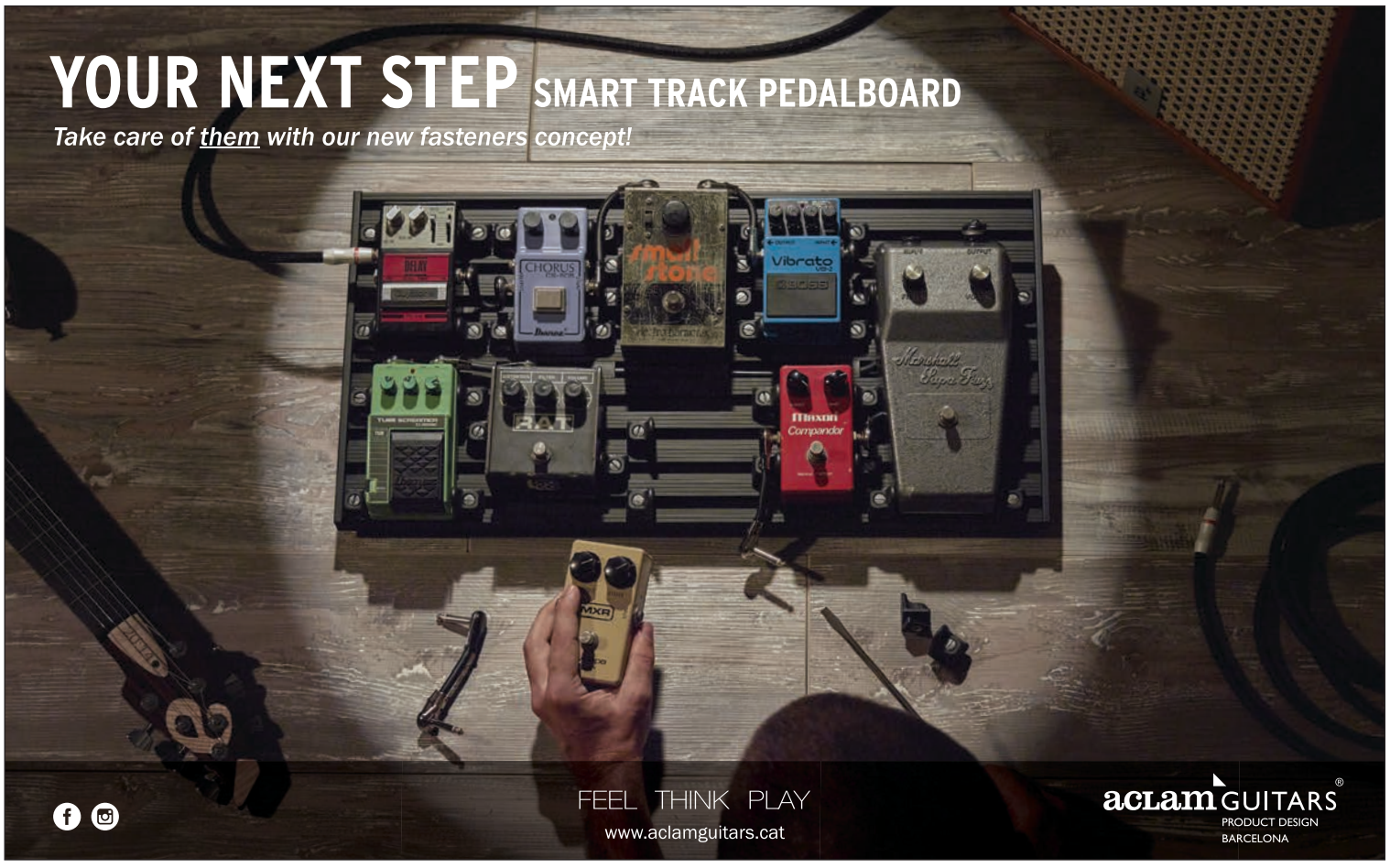
So did you track mainly with the Customs?
I used so many guitars, but I'd say the bulk of *Freedom* was done with my No. 1 Les Paul Custom from the '90s.

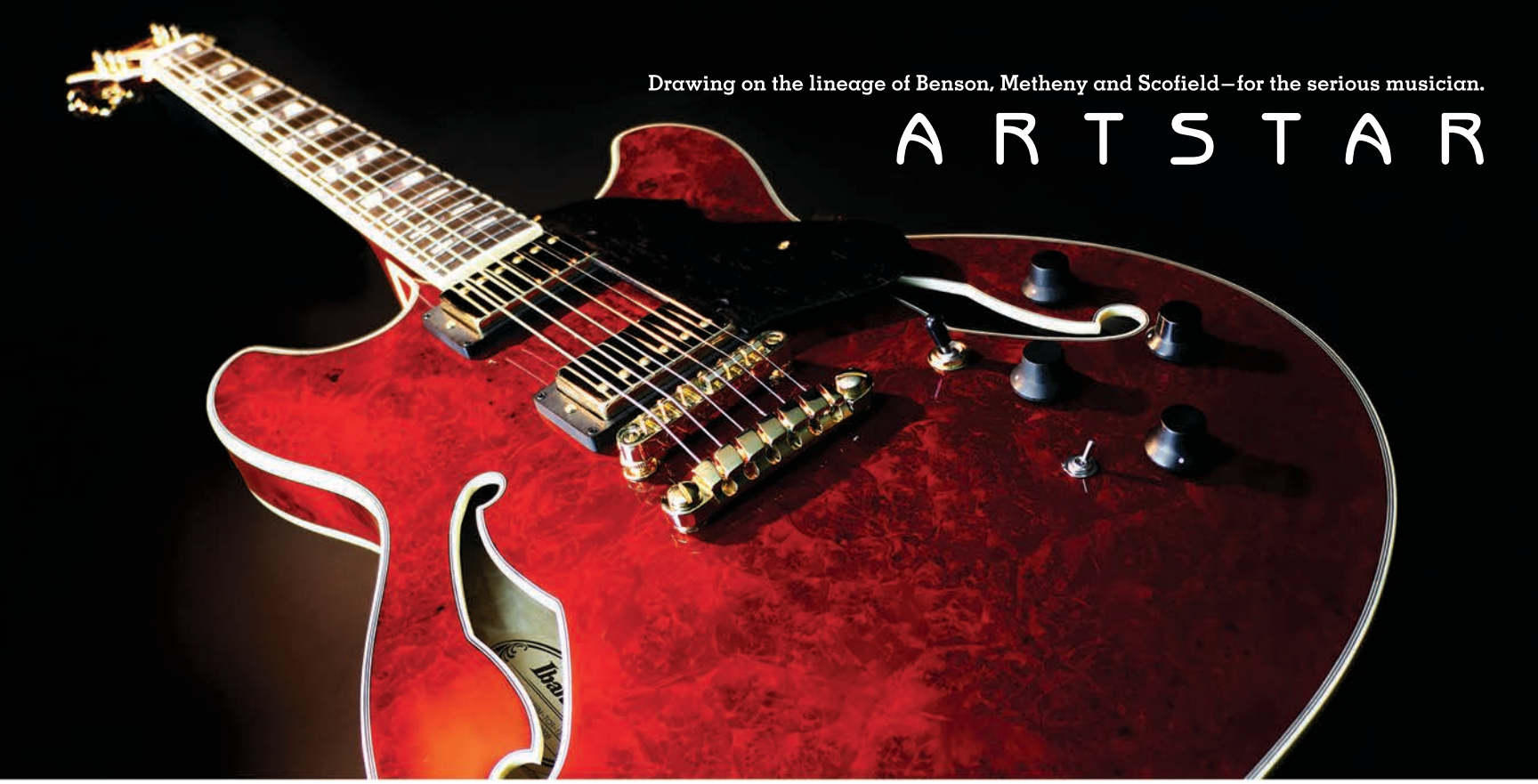
I'm hearing some funky single-coils on "Servants of Death." What did you use for that song?
For the clean, *chk-chk* riffing, it's a Stratocaster, and for the distorted rhythm parts I actually used the 335.

What were you going after in that main clean riff?
Honestly, I just wanted to make Nile Rodgers proud [*laughs*]. He's a one-man orchestra with that Hitmaker Strat. He's the best. What I envisioned the guitar to sound like for "Servants" was a heavier, funk-guitar part you might find on Michael Jackson's *Off the Wall*. Trust me, when I started playing around with that riff, I was very concerned not to come off as some white European who's horribly trying to play funk guitar. You balance on the razor's edge when you make any sort of funk music with a bunch of white Swedes [*laughs*]… you just don't want to look like assholes.

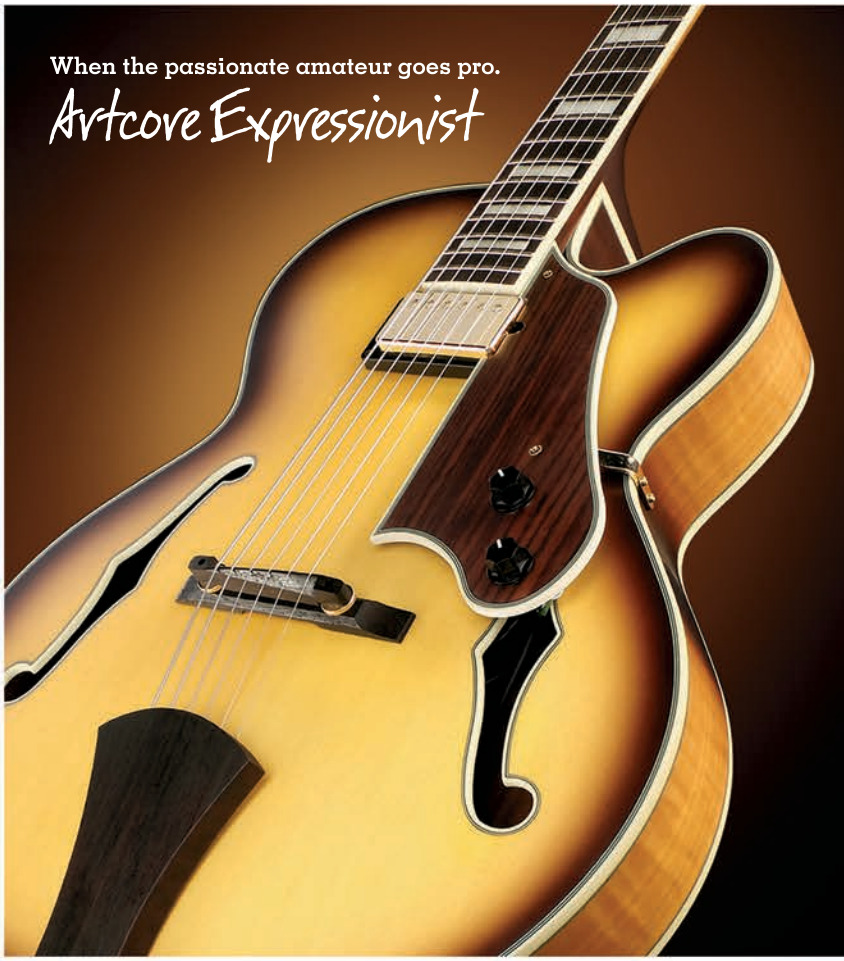
You guys like being out of your comfort zone.
Well, not all of us, and not all of the time. There's usually one or two of us that is apprehensive about a lyric, or a breakdown, or instrumentation, but we usually talk it out and convince the unsure parties that everything will turn out and we'll still sound like Refused.

What was an example of this during *Freedom*?
I remember with "Old Friends/New War" we had a lot of initial eyebrows raised. I had the idea of the completed, tracked song in my head, but when you're





Jazz box, rock hybrid, and everything in between... Ibanez hollow and semi-hollows have earned a solid reputation for being as expressive, and well crafted, as they are reliable. Visit your local authorized Ibanez dealer and experience an Ibanez hollowbody.



Ibanez®

at the rehearsal space it's just guitars, bass, drums, and vocals, so it was hard for me to express everything I heard and saw being put into the final song. I knew all along that the drums would sound different, that we'd start with a modulated-voice intro, we'd have some extreme synth parts, and Dennis would have really dramatic vocal breakdowns. Everyone was kind of tepid about the song because it felt like a generic rock song and that's definitely not us, but I convinced them that *this* will work out and to please *trust* me.

I think that's what makes it one of my favorite Refused songs, period. How it turned out is almost identical to what I envisioned from the start. It was honestly a bit surprising how everything fell into place and it sounds like my idea. That usually never happens just because other people add better ideas, or halfway through you realize you can't use that drum sound because it's too harsh or distracting.

In a band setting, is hard for you to push against the grain and go after something that is original or off the beaten path knowing the resistance you may face?

I wouldn't say I was afraid of the other's reactions, but the thing that always concerns me is resting on our laurels, or defaulting to something safe that we *know* is Refused. That scares me a lot—in this band and any artistic endeavor I'm involved in.

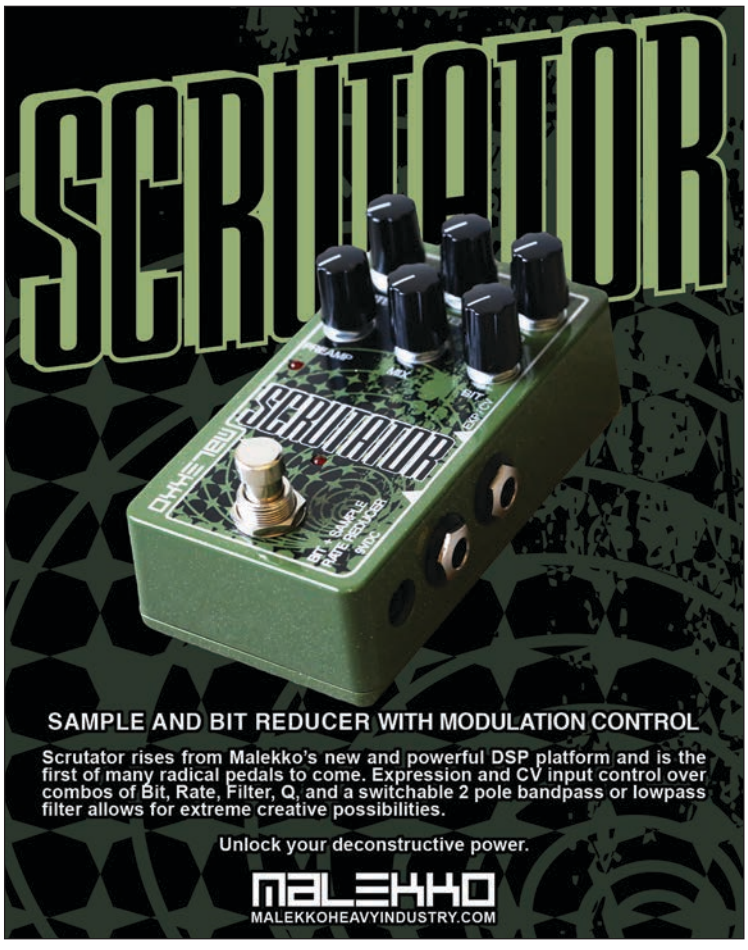
I think it's in our nature to stay safe, but I think it's our job as artists and musicians to fight that inclination and push through the uncertainties and questions. Don't get me wrong, plenty of those unusual ideas don't pan out, but it's the practice of going against the safety-net mentality that makes even an unsuccessful attempt at something new worth the hassle and time.

"Old Friends/New War" ends with a killer, harmonized, phaser-rich riff that any guitar nut would love. What inspired you to throw that in there?

Again, I was just trying to emulate one of my heroes—this time it was Jimmy Page. One of my favorite things he's put out is "Nobody's Fault but Mine." I absolutely love how that song starts with just him and his riffs. I tried to give Jimmy a tip of the cap by doing something similar to that song. We're all really big Led Zeppelin fans, so everyone really enjoyed that part.

In all seriousness, when I came up with that part I wanted to bring it back to rock because up to that point, most of the song is hip hop orientated with the synths, the Afro rhythms, and electronic drum sounds. That riff brings it back full circle and propels the song to the end. Just imagine the song as a regular rock song and then that part at the end—it'd be a lot less impactful, and almost cliché, because it probably would sound like most of the song. I've learned differences work really well together.

In addition to Nile Rodgers and Jimmy Page, what are some of your other musical influences?



Well, those two are just phenomenal guitarists, but the reason I think they're two of the best is because of their songwriting abilities and arranging chops. They're amazing. Another artist that really excites me is Prince—his guitar work and compositions are unmatched. My favorite guitar album is probably *Visions of the Emerald Beyond* by Mahavishnu Orchestra with John McLaughlin and Ralphe Armstrong. I can't say that album has been linked to any Refused songs like the other guys already mentioned [*laughs*].

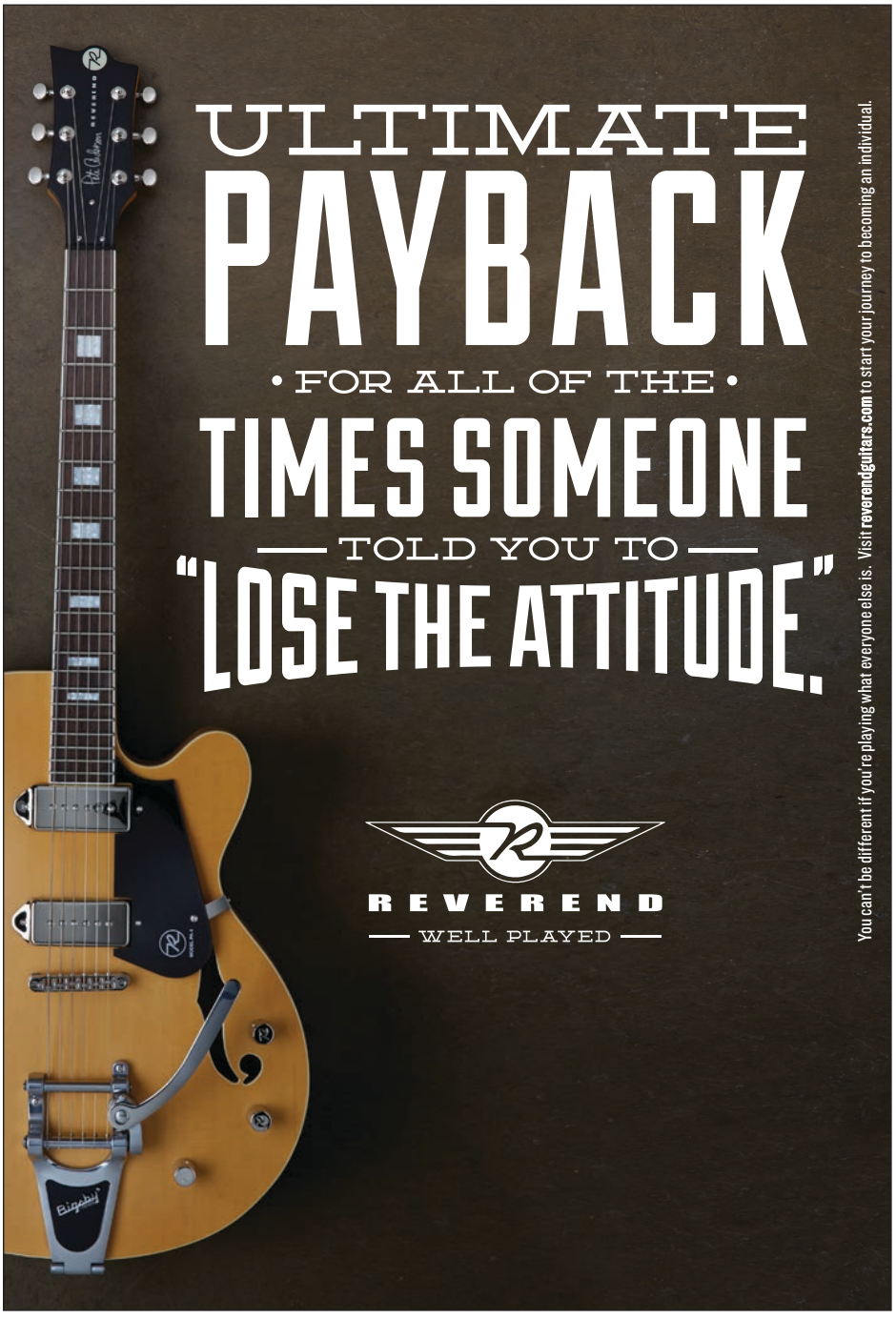
Another person who inspires me is Kanye West. I'm sure people will roll their eyes, but I was really impressed with *Yeezus* because it was so forward-thinking, experimental, weird, and it incorporated so many new musical twists and chances. He's such a bizarre, clown character on one hand, but on the other hand he's a mastermind just like those other artists. It's certainly a brave move for someone so mainstream and commercial.

Was *Yeezus* a reference point for some of the industrial-ish drums and rhythms on *Freedom*?
I wouldn't say it was something we strived for and demanded, but you can hear the resemblance of that musical style in "Old Friends/New War." Another hip hop reference—a more direct one—that we wanted to achieve is the snare-drum sound of Jay-Z's "99 Problems" for "Françafrique." The way the guitar riff works in "Françafrique"—I'd say it's a combination of Hendrix's "Stone Free" and "Freedom"—you need a compelling, contrasting element that makes it sound huge and fresh.

You're more than just the band's preliminary guitarist. You help orchestrate a lot of the instrumentation on *Shape* and *Freedom*. What do you enjoy about that side of the process?
I look at things from two perspectives—as a guitarist and as a song architect. What originally got me into music in high school and earlier was playing guitar and learning the songs of my heroes. I still really enjoy creating riffs and coming up with guitar parts, but anymore, I'm most excited about contemplating the greater picture and landscape of a song. A guitar is a tool, but a song is an experience and I like having a hand in creating a new listening experience for music fans.

Would you say the drive to participate in arrangements, songwriting, and the overall process was something fostered during Refused's downtime?
I've always had an interest in everything beyond guitar playing, but I think directing plays and operas after Refused was finished was as big of an influence as anything else in my life. Working in that arena and format has really bolstered my eye for the overall project and message. I've really grown to appreciate the process and get creatively energized from putting the musical puzzle together.

"Destroy the Man" is a complicated number. How did you develop that song?
That song was like "Elektra" in that we came up with it during the basement Slayer jams at David's. At that point, I was really into Robert Fripp and early King Crimson, so I crafted these weird chromatic figures and tried to warp them into a memorable riff. I think chromatic passages are generally very



boring because they're limited structures. David put together a really catchy, moving, danceable beat, and Dennis added those doo-wop background vocals to make the finished song have a bit more groove. This was probably the most time-intensive track on *Freedom*—we could release a box set of takes on just "Destroy the Man" [*laughs*].

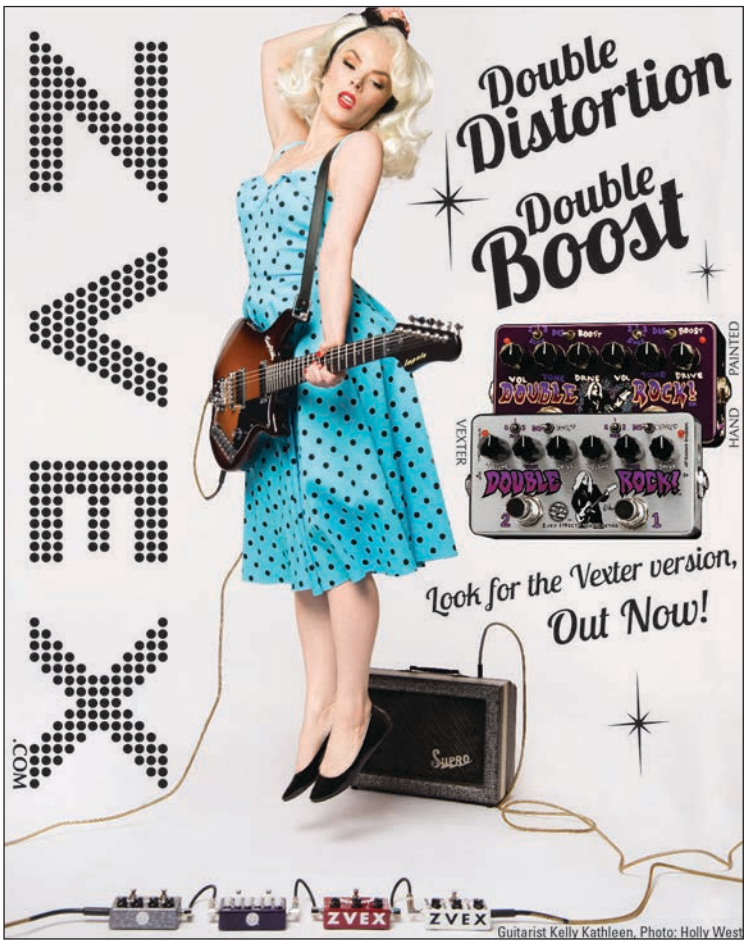
What amps did you use to record *Freedom*?
I blended a lot of amps, but the main ones I used for my clean or semi-distorted tone was a Vox AC30 and an '80s Mesa/Boogie Mark III combo. For the album's really aggressive tones I added a Diezel VH4 and a heavily modded Marshall JCM800 to the mix. You can really hear the addition of those two amps on a song like "Dawkins Christ."

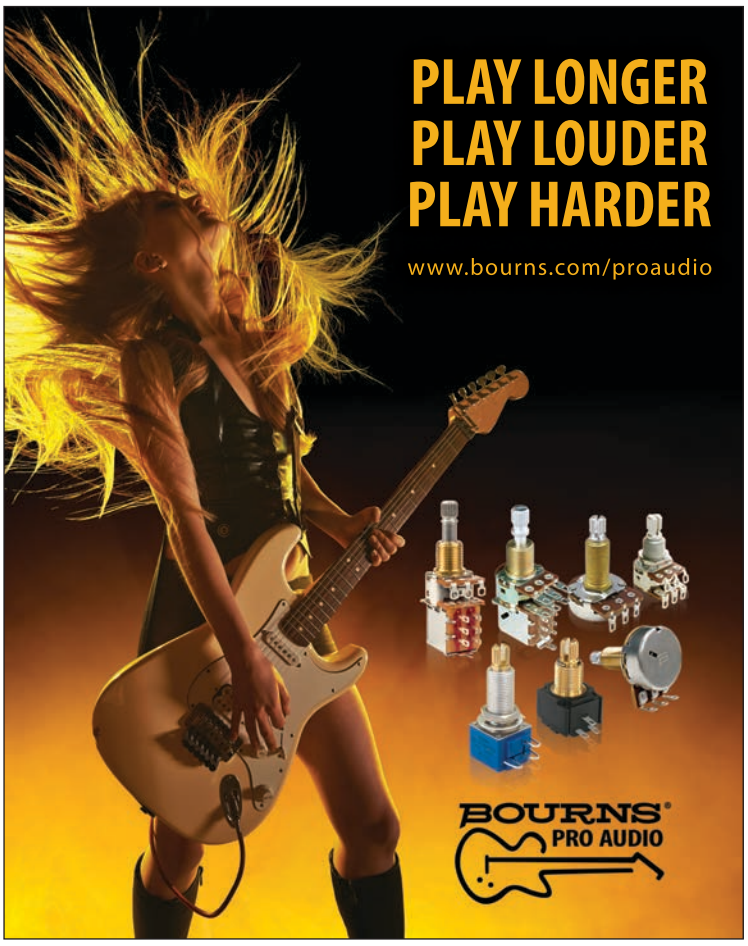
During that guitar breakdown towards the end of "Old Friends/New War," I got to use a really special amp that our producer Nick Launay had sitting around. I believe it was one of Eric Clapton's old tweed Fender Twin combos that Nick acquired during the time they recorded *Behind the Sun* together in the '80s.

From what I can tell, your recorded and live sound is pretty dry. Do you use many effects in your Refused rig?
The only things I use much would be a Dunlop Cry Baby 535Q wah and a MXR Phase 90. If I want a different or specific sound, I'm more likely to achieve it with a different guitar with different tonewoods and pickups, rather than messing with a bunch of pedals. For any added volume or distortion for heavier parts or solos, I just use either a Boss BD-2 Blues Driver or a Mad Professor Royal Blue Overdrive.

I've seen that you like regular-to-light strings, but prefer a heavy pick. Why's that?
I generally play any brand of strings that are .010-.048. I don't like playing anything heavier because I think the tone gets flubby, muddled, and loses too much clarity for my taste. I don't look at playing guitar as some sort of competition or obstacle course for my hands and fingers [*laughs*]. For picks, I play with a Jim Dunlop Tortex 1.14 mm. I feel the heavier pick is akin to the band's percussive nature, so I hear a more immediate attack than when I use a .73 mm or lighter. Plus, I like the rigidness because I feel it allows me to be more precise in my picking.

So the big question: Are you guys going to wait another 17 years before releasing a new album?
No, no, no [*laughs*] ... I think it's too close to *Freedom* for me to analyze things I'd like to accomplish going forward with Refused, but I assure you that we don't plan to wait that long again. We've already talked about going forward and it still excites all of us to be in Refused, so we will see.





THE RESURRECTION OF THE LEGENDARY BINSON ECHOREC MULTI-HEAD DRUM ECHO.

Your Guitar Might Last Forever, But Will Its Parts?

BY RICHARD JOHNSTON

Right: You're more likely to run into celluloid rot in bridge pins and/or tuner buttons than anywhere else.

Below: This 1969 Gretsch has a severe case of celluloid rot and needs multiple layers of body binding replaced.

Now that some vintage guitars from the mid-20th century are approaching the value of fine violins made 300 years ago, people tempted by the investment potential of old instruments often compare Stradivarius violins and high-ticket Gibsons or Martins. Just think of what that flame-top '59 Les Paul Standard or a rare '38 D-45 will be worth on its 300th birthday! There are, however, some critical construction differences that suggest guitar collectors have more to worry about than fires, floods, and flatpicks when it comes to protecting the originality (and value) of their most prized possessions.

The varnish and glue used by early violinmakers had already been in use for hundreds of years by the time little Tony Stradivarius started whittling with a violin knife. By the late 19th century, however, mass production of furniture and musical instruments brought more changes in just a few decades than instrument makers had seen in several previous generations.

The plant-based stains suspended in varnish that provided the subtle shading on violins and some early guitars were replaced by aniline dyes. Around the same time, the tortoiseshell and ivory that had been used to adorn the edges of high-grade instruments were replaced by a new and far more flexible material called celluloid—the first thermoplastic. This cellulose nitrate—made with nitrocellulose and camphor—was soon joined by a new type of finish we know as nitrocellulose lacquer.

Fretted-instrument manufacturers had no reason to doubt the longevity of celluloid, and the ease of making their wares more colorful and decorative soon led to a riot of contrasting lines of binding around richly colored bodies and necks, especially on the new jazz-age guitars and banjos of the 1930s. This new wonder material had a myriad of other uses. Thin and transparent rolls of it were used for movie film, while far-heavier stock was widely used for dice, combs, bracelets, and dresser sets. Most of what looks like ivory knobs on old guitar, banjo, mandolin, and ukulele tuners is actually ivory-grained celluloid.

We don't know *what* makes celluloid decompose (aka "celluloid rot"), but we do know that when it fails, it often goes from looking great to looking awful very quickly. Some of the earliest instruments to display celluloid, such as those made by Washburn, Fairbanks, and Gibson, seem fine over a century after they were made, but a lot of guitars made in the 1930s and later are in serious trouble. The famed archtop builder John D'Angelico, who died in 1964, was rebinding some guitars he'd made less than 20 years earlier.

Is celluloid rot caused by the glue used to hold binding in place? Is it caused by the finish applied over it? Nobody seems to know for sure, but thick, suspended pickguards like those found on archtops seem most prone to early decomposition, even if they weren't lacquered. The binding and pickguards on Martin flattops seem to rarely fall victim to celluloid rot unless the instrument is refinished with lacquer. If this sounds confusing, you're not alone. Also baffling is the fact that not all the celluloid on the same instrument starts to decompose at the same time. Two or three bridge pins may shrink to less than half their original size while the rest of the set seems fine. And of the four pieces of binding on the body edges of a guitar, sometimes only one is affected, which suggests that differences in manufactured batches may have a role.

Musical instruments with celluloid pickguards, tuner knobs, and binding often reside in their cases for long periods, and when celluloid rot strikes in such a confined space, it isn't just the celluloid itself that suffers. The outgassing of nitric acid often bleaches the case lining, tarnishes surrounding metal parts like frets or pickup covers, and discolors the lacquer as well. This collateral damage—especially to the gold plating on metal parts—is often far more costly to restore than the loss of the celluloid pickguard that caused the problems.

When celluloid rot is confined to small parts like tuner knobs, replacing them can be an easy fix. And because so many of the off-white celluloid knobs on tuners from the '40s through the '60s are shrinking and crumbling, the "gotta be original" mania surrounding vintage guitars seems to be showing a rare hint of reason. There's not much point in paying a premium for a '40s Martin or Gibson with its original tuner buttons when those originals could disintegrate in the next few years. There will be exceptions, but a general sense of inevitability has set in and a vintage Gibson J-45 with replaced celluloid buttons won't necessarily sell for less than one with the original tuners intact.

The short lifespan of some celluloid has also wreaked havoc on newer guitars, including some from as recent as the 1990s. Elevated pickguards are easily replaced, and exact replicas are available for most models. Replacing disintegrating binding on a finished guitar, however, takes a lot more effort and skill. The 1969 Gretsch shown in **Photo 1** needs all of the multiple layers of body binding replaced, and ideally, the green finish should be disturbed as little as possible—not an easy task.

Dice and movie film are no longer made of cellulose nitrate, but American guitar manufacturers and individual luthiers alike are still using lots of celluloid on high-end instruments, especially for vintage-reissue models. There's a good chance that the new UV-cure finishes and modern adhesives will prevent celluloid binding from crumbling into dusty chunks, but only time will tell. The long-term result of demand for new guitars made "just like in the good ol' days," however, may make us wish we were more careful about what we wished for.

RICHARD JOHNSTON *co-founded Gryphon Stringed Instruments with Frank Ford in 1969. He later shifted from repairing vintage guitars to writing about them, and has contributed to dozens of magazines and several books, the most recent being* Inventing the American Guitar. *He appraises musical instruments for* Antiques Road Show *on PBS.*

VINTAGE

The new **2016 Vintage Line**. Built with custom Thermally Aged top wood, allowing us to replicate the aging process on the cellular level for that legendary Gibson Acoustic vintage sound and appearance.

Gibson Acoustic

gibson.com

BUILD YOUR DREAM BOARD AT

PEDALBOARDPLANNER.COM

OVER 1500 PEDALS
NEW PEDALS ADDED DAILY • REQUEST YOUR FAVORITES
ALL PEDALTRAIN MODELS
MILLIONS OF COMBINATIONS

Share your board with us!
#mypedaltrain

pedalboardplanner.com @pedalboardplan
@pedalboardplan /pedalboardplanner

pedaltrain®
U.S. Pat. No. 6,458,023
DESIGNED IN NASHVILLE, TN
HANDMADE • PATENTED
@pedaltrain | pedaltrain.com

PERSONALLY VOICED BY JOHNNY WINTER

BIG JOE STOMP BOX COMPANY

"I cannot believe how this pedal recreates my tone through any amp I play through!"
- Johnny Winter

www.BigJoeStompBoxCompany.com

Introducing: A Chorus Line!
From Analog.Man

Chorus For The Lactose Intolerant*

The Analog Man Chorus has been popular for 15 years, but we don't rest on our laurels. It has constantly been improved with new versions, features, and options added every year. Using N.O.S. Japanese Panasonic BBD chips, each pedal has the same sweet "legs" but we have several models and options- one is sure to meet your needs. Stereo, mix, depth, remote, foot, and A-B options are available. Still completely hand-assembled in the USA! *No Cheese!

ANALOG.MAN
WE DO PEDALS RIGHT
Analogman Guitar Effects LLC
(203) 778-6658 analogman.com

THE FEELS

*Slightly Stoopid's **Miles Doughty** and **Kyle McDonald** have been playing bass and guitar interchangeably for 20 years, switching seamlessly from laying a groove to cutting loose.*

BY TZVI GLUCKIN

Photo by Amanda McCarver

Slightly Stoopid was founded by Miles Doughty (left) and Kyle McDonald (right) in 1994. Both players share guitar and bass duties equally.

Most guitar players suffer from bass envy. They crave low-end mojo and want to be cool in that detached, understated, bass-player way.

On the other hand, some bass players are frustrated guitarists and long for glory and a chance to step out of the shadows. Well, maybe not out of the shadows, but at least for an opportunity to play above the 7th fret. In most cases you're stuck with your instrument and the role you're assigned.

Unless you're in the band Slightly Stoopid. Founding members Kyle McDonald and Miles Doughty prove you *can* have it all. Both McDonald and Doughty play guitar and bass, and both players take each instrument seriously. They play bass like a bass player—with their fingers, *sans* pick—and weave endlessly groovable lines that sit deep in the pocket. But watch out: Either player can just as easily strap on a guitar, step up to the front of the stage, grab a pick, and add layers of color and madness like you'd expect a guitarist to do. And their transition between instruments is seamless.

McDonald and Doughty founded Slightly Stoopid in 1994. Back then, they were eager young San Diego teens, lived near the beach, surfed, played guitar, listened to music, went to shows, and were basically inseparable. "We're brothers from other mothers," Doughty says. "We've been around each other more than we have most of our family—because we're always on the road together and whatnot—even growing up, we hung out every day when we were young."

They were still in high school when they met Sublime frontman Bradley Nowell, who became a big brother, mentoring them and taking them under his wing. Under his guidance, Slightly Stoopid signed to Skunk Records, recorded their first album, hit the road, and built up a massive and loyal following for their infectious blend of punk-influenced reggae and groovable jams.

More than 20 years later and on the heels of their eighth studio release, *Meanwhile…Back at the Lab*, Slightly Stoopid haven't stopped touring and show no signs of slowing down. "Most people can't say they get to do what they love, travel around the world, uplift people through music, and uplift themselves every day," McDonald says. "It's a pretty big blessing."

PG caught up with the duo to discuss their unique working relationship, the secrets of writing great bass parts, the deceptive simplicity of difficult reggae feels, their new custom Fader guitars and basses, and—in the spirit of their SoCal roots—glass guitars that double as bongs.

Photo by Doug Hac

EarthQuaker Devices

Reverberation Machine

Mini-Ultimate Overdrive

Analog Octave Up

Dual Resonant Filter

Slightly Stoopid's Miles Doughty is shown here playing a custom Fader bass that's chambered to give it a woodier sound, make it rounder, and feel lighter. It also features an onboard preamp.

When did you first get interested in music?

Kyle McDonald: I've always been into music but what really got me into wanting to *play* music was Mötley Crüe, Guns N' Roses, Metallica, Def Leppard—I think I was 9 or 10 when I got into those bands. Those were the kinds of bands that made me want to play guitar.

Miles Doughty: I started playing guitar around 12 years old. Kyle and I both started playing around the same time and it just took off from there. We started on the acoustic guitar and then slowly started to play the electric. We started a band in high school. Obviously, we're still doing it.

How did you meet up with the guys from Sublime?

Doughty: We met them when we were young at a show in San Diego. It was at this place called Green Street. My mom had convinced Brad [Nowell], Miguel [Michael Happoldt], and Brad's girlfriend to come back to the house the next day—my mom was pretty convincing back in the day. We had guitars and a 4-track set up, started jamming, and became buds. I was just a kid but Brad took on that big brother role and came down and jammed. I would cruise up to Long Beach and cruise with all the guys and go to the shows. I was a 16-year-old hanging out with all these cats and it was pretty rad man. It was a whole experience.

What did you learn from them about playing and recording?

SLIGHTLY STOOPID'S GEAR

GUITARS & BASSES

Assorted Fender Strats
Taylor T5
Taylor 814ce
Assorted Lakland basses
Fader P-style custom bass with onboard preamp
Fader modified Jazzmaster-style body with two P-90 pickups and a stealth humbucker mounted under the pickguard

GUITAR AMPS

Mesa/Boogie Dual Rectifier Head through 4x12 cab
Mesa/Boogie Lonestar Head through 4x12 cab
Fender Twin Reverb 2x12 combo

BASS AMP

Aguilar DB 751 Head through 8x10 Ampeg cab

GUITAR PEDALBOARD

Electro-Harmonix Holy Grail Reverb Nano
Boss PH-2 Super Phaser
Boss DD-3 Digital Delay (two)
Ibanez Tube Screamer
Boss Giga Delay DD-20
Fulltone OCD
Morley Steve Vai Bad Horsie 2
Electro-Optical Contour Wah Pedal
Boss TU-2 Chromatic Tuner
Voodoo Lab Amp Selector

BASS PEDALBOARD

Boss TU-2 Chromatic Tuner
MXR Bass Envelope Filter
Dunlop Uni-Vibe Jimi Hendrix 70th Anniversary
MXR Carbon Copy Analog Delay
Mesa/Boogie Flux-Drive
Mesa/Boogie Tone-Burst
Mesa/Boogie Grid Slammer
Dunlop Cry Baby Wah

PICKS & STRINGS

Dunlop picks 1.00 mm
.012 sets for both electric and acoustic guitar

Photo by Anders Junger

WAY MORE THAN A DELAY

- Dual Pitch Shifting Delays
- Multi-tap patterns with Golden Ratio
- 8x LFO waveforms w/ variable tap sync
- Low Pass, Tape & Comb Filter w/ variable cutoff
- Parallel Sweep Filter & Bit Crusher
- Ducking, Reverse and Halo Effects
- Expression control of all knobs
- Envelope control of all knobs
- Comprehensive MIDI control
- 60 “user definable” presets
- FREE Editor Software for MAC/PC
- TRS Remote Switch for Looping

Also available: **E2 Filter Pro**

PIGTRONIX®
FUTURISTIC AUDIO TECHNOLOGY

McDonald: We learned from them to take it on the road. No matter how many records you have out or how great a record is, you have to take it to the road, tour, and be a road dog. It will take about five years from the time you start to get anything off the ground. We've seen people that have been coming out to shows for almost 20 years now. We see them every year, they're like family to us.

You both play guitar and bass, which is unusual. Why is that?
McDonald: I think it's a little easier to sing and play the guitar than it is to sing and play the bass. We do a little bit of both, but for the most part, the guy who is singing has the guitar.

Is it obvious who is going to play guitar and who will play bass on a particular song? Do you ever have to fight it out?
Doughty: No. Usually if I write something on guitar, I play it on guitar. If Kyle writes something on guitar, he plays it on guitar. There's no fight about it. If he has ideas about what he wants to do for a bass line for the song, I just learn what he wants to play. And vice versa. If we have different ideas about what we want to hear on bass, we both just learn what the other guy wants to hear and make it happen within the music.
McDonald: Really it's just whatever is more natural. We feel it out.

Both of you play the bass with your fingers but use a pick for guitar. Why is that?
Doughty: That's the sound you want on the bass. You don't want to play the bass with a pick if you're playing reggae, blues, funk, and all that stuff. You're not supposed to use a pick. You need that warmth from the fingers.

Most guitarists are horrible bass players—they overplay and their tone is lacking. How do you switch hats so quickly when you take on the bass role?
Doughty: It's just the vibe that you have to pick for each song. Obviously, as a guitar player you always want to add

Photo by Rich Osweiler

CUSTOM AFFAIR

Slightly Stoopid recently added two new instruments to their arsenal of touring gear: a Fader Custom guitar and bass. They're particularly enamored with the bass. "It's so warm and round and every note is just crisp and clear," says Miles Doughty. Kyle McDonald agrees. "It doesn't feel like you're holding a big thing and it's super light," he adds. "You can move around a lot more and it really brings the tones out."

Fader Custom guitars and basses are one-of-a-kind instruments built by Craig Welsch in Boston. "Being a sound engineer, I'm obviously into detail and tone," says Welsch. "Those two things helped me construct guitars that would do the things I needed them to do in the studio." It doesn't hurt that the studio he works at—Boston's Rear Window Studio—is stocked to the rafters with vintage gear. "I analyzed those instruments and saw what was making them work—the woods, the necks, the hardware—there's a charm to the old hardware that is considered by many to be cheap hardware. It's very thin. It's cheap. But it vibrates. When you get into all this newer hardware that is supposed to be high mass and all that stuff, it suffocates some of the charm of what those instruments do."

Welsch was Slightly Stoopid's front-of-house engineer for four years in the late 2000s. "I learned all the things they would struggle with night after night," he says. "One of them being that the bass never quite had definition, it seemed it was the wrong kind of bass. I designed an instrument for them to be chambered to give it a woodier sound, make it rounder, and to lighten the load on their shoulders. I put a preamp inside of it—it's basically a notching filter type of thing, like an old API EQ, and you can boost or cut at different frequencies. I shaped that around what they were going for. A lot of the old reggae lines play on the D and G strings and they want those strings to still be round and have low end."

The guitar is unconventional as well. It has Jazzmaster-style body but a unique pickup configuration, with two P-90 pickups (neck and bridge) and a humbucker in the middle, hidden underneath the pickguard. "It has all of the positions of a Les Paul and then the two great Stratocaster sounds, those being the out-of-phase sounds in the second and fourth switch positions," Welsch says.

"I designed those instruments specifically with them in mind," he adds. "Meaning two guys who switch between bass and guitar during the show a lot. Kyle liked one sound and Miles liked another, and they had to find happy mediums." Even the strap length had to be discussed. "When you throw a guy a guitar, he's got to be able to play it."

JOIN THE MEISTER FAMILY

A NEW STANDARD IN LIVE AMPLIFICATION

Become one of more than 50,000 Meisters rocking stages all over the world!

"After six years with Hughes & Kettner, it came as no surprise to me that the TubeMeister would pack such an amazing variety of tonal possibilities in such a lightweight, compact model. It uses very little space, but when in use, its presence is definitely known."

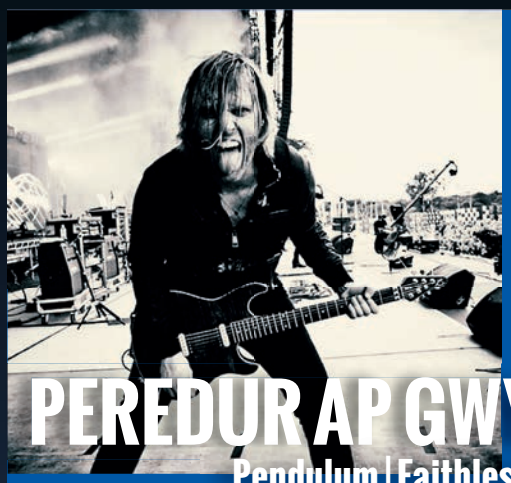
JOSH RAND
Stone Sour

JEFF WATERS
Annihilator

"The GrandMeister 36 is the perfect amp for the bedroom, the basement, the jam room, the club, the theater, the hall, the arena and even the stadium."

"The Hughes & Kettner TubeMeister 36 blew my mind when I first heard it. It gives me all the tones I need to play with Alan Parsons. From pristine clean to fat overdriven crunch, I can get any sound at any volume. It's truly amazing!"

ALASTAIR GREENE
Alan Parsons Live Project



PEREDUR AP GWYNEDD
Pendulum | Faithless | Anastacia

"There is only one reason I play Hughes & Kettner. They are the best. I don't think I've ever played a better amp than the GrandMeister 36."

TubeMeister 18

TubeMeister 36

GrandMeister 36

Hughes & Kettner®
TECHNOLOGY OF TONE

Hughes & Kettner is proudly distributed in the USA & Canada by Yorkville Sound.
www.yorkville.com
Hughes & Kettner Headquarters • P.O. Box 1509 • 66595 St. Wendel, Germany
www.hughes-and-kettner.com • facebook.com/hughesandkettner

Yorkville

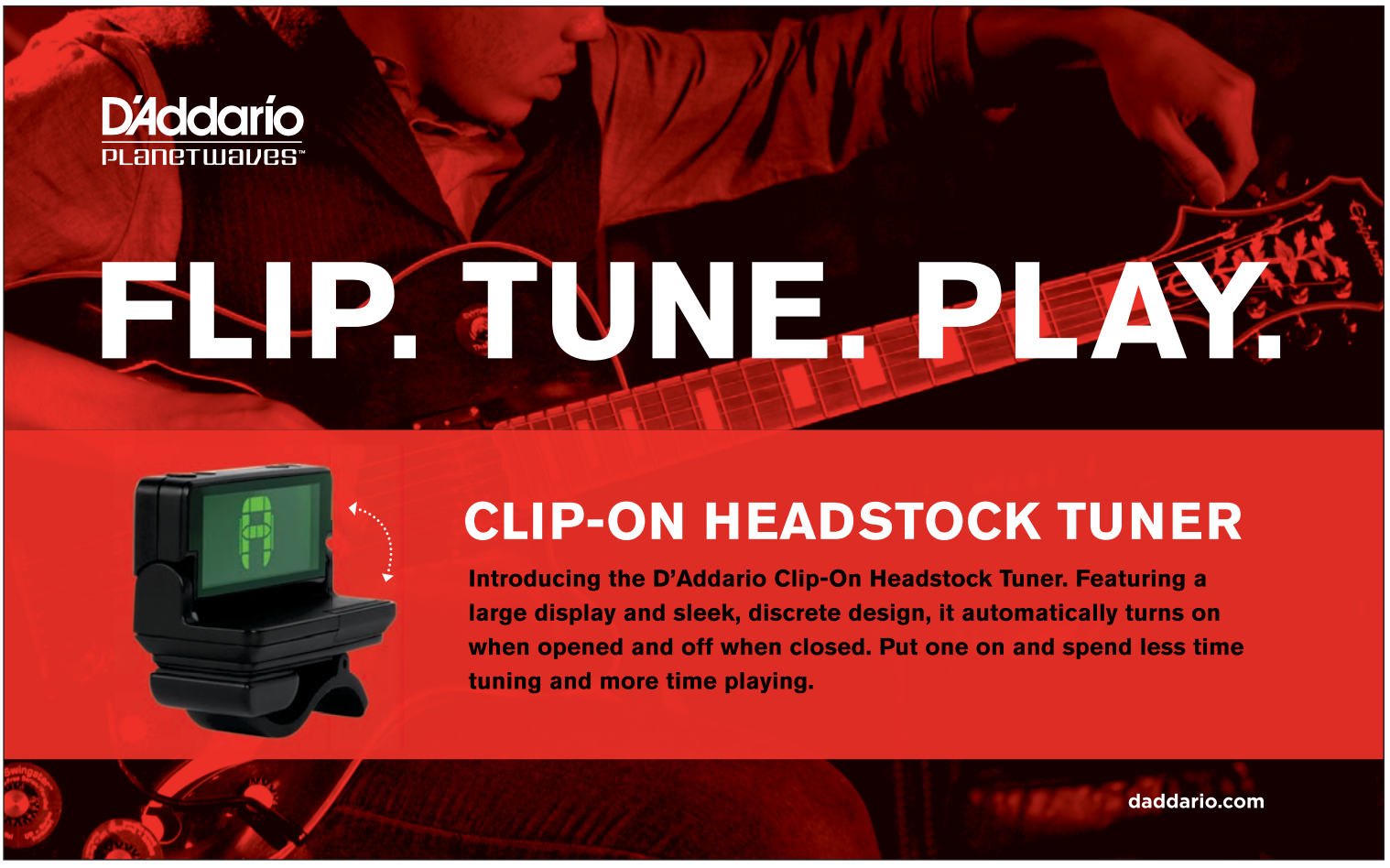
extra stuff. When you're playing bass you have to be with the feel of the drums and of the other instruments onstage.
McDonald: I think if the drums are cracking and you have a really strong foundation of a drum beat—that's what the bass line revolves around. Also, less is more. You have to know where *not* to play. Where you do play, keep it bubbly or keep it according to that beat. If the heartbeat is solid and strong, then the song will be too. The beat and the foundation—you just keep the bass revolved around that.

When you switch instruments, the bass player moves to the "bass spot" onstage, too. Why is that?
Doughty: I like to stand right in front of the kick drum. You get to feel all the subs and the side fills. We have two 8x10 cabs on the side of the drums, so it gets that full, round feel.
McDonald: Sometimes the stage resonates in different areas and if you stand on what we call the hot spot—it's the fucking *sweet* spot—it just rumbles bigger. It rumbles up through you. It feels good.

How does your relationship with the rest of the band change when you're playing bass as opposed to guitar?
McDonald: When I'm playing bass I try to keep it locked and tight and grooving. When I'm on the guitar there is a little more freedom. That's where I let loose a little bit.
Doughty: The role of bass is to create that pocket with the drums, so any vocal, piano, horn line, or guitar can drop in there. You need that to keep the song going—it carries everything. If you're playing something funky and fast, the bass is going to be a little busier. If you're playing slower and more laid back, it's going to be less notes and more locked in the pocket.

How about rhythm guitar? In such a large band, do you sometimes find you're competing with the keyboards? How do you control the clutter?
Doughty: Sometimes you just stop playing guitar. We'll stop, let the keyboard play, and concentrate on the vocals. When you're not singing—bring the guitar back in. And obviously, when you're playing something like reggae, you don't want to be competing the whole time—like doing skanks at the same time—so you do different things, whether it's doing shadow guitars or little licks.
McDonald: Silence is golden, I always say. Some of the best musicians know when to drop out, come back in, do air breaks, little pauses, and stops, and fills—it's just a feeling—little formulas of when to cut in and cut out. It goes a long way.

What advice can you give younger players trying to learn how to play a reggae or ska feel?
Doughty: You need to do your homework by listening to reggae music in general. It isn't as easy as everyone



DRIVEN TO PERFECTION

GOLD AWARD · Guitarist CHOICE · Guitar Player EDITORS' PICK
TONE-BURST™

GOLD AWARD
GRID SLAMMER™

GOLD AWARD · Guitar Player EDITORS' PICK
FLUX-DRIVE™

GOLD AWARD · Guitarist CHOICE
THROTTLE BOX™

You've heard about 'em. You've probably seen them. Maybe you've even read the many glowing Reviews. It's time to experience them for yourself! MESA Drive Pedals. See what 44 years of HIGH GAIN alchemy can achieve for Pedals by the folks who literally invented it. There's a model that's perfect for every style, gain region and need. Compare their design, TONE, build-quality and materials to the competition - you'll find they're truly superior. And every one is hand-built in Petaluma, CA at MESA/Boogie® Ltd., the original Home Of Tone®. Check these beauties out today and you'll see we really are driven to perfection.

MESA/Boogie LTD., 1317 Ross Street, Petaluma, CA 94954 Tel: 707-778-6565 www.mesaboogie.com

MESA ENGINEERING

thinks. A lot of people do the upstroke for the reggae rhythm because they can't understand the way that you hear it. Sometimes it can't be taught if you don't have the feel—not everyone is going to be able to do it. But I think that sticking to your guns, always practicing, and not being lazy—you're going to break through regardless. And what's cool about today is that you can pull anything up on YouTube. You can watch the whole technique of it.

Playing a funk groove or a reggae feel is a lot harder than it looks.

Doughty: It is a feel and it's not as easy as everyone thinks. But also it's not as hard if you understand what's going on in the music. That's why I say you have to do your homework with some of the old-school players. Sly and Robbie is a great way to start. A lot of people's first choice is Bob Marley—he's the most recognizable reggae musician. But there are also amazing cats like Don Carlos, Yellowman, Toots and the Maytals, Desmond Dekker—stuff like that should be studied. That's how you learn how to play.

> **"A lot of the reggae songs sound good when you add acoustic rhythms to them. There's something the electric can't get that acoustic has." —Miles Doughty**

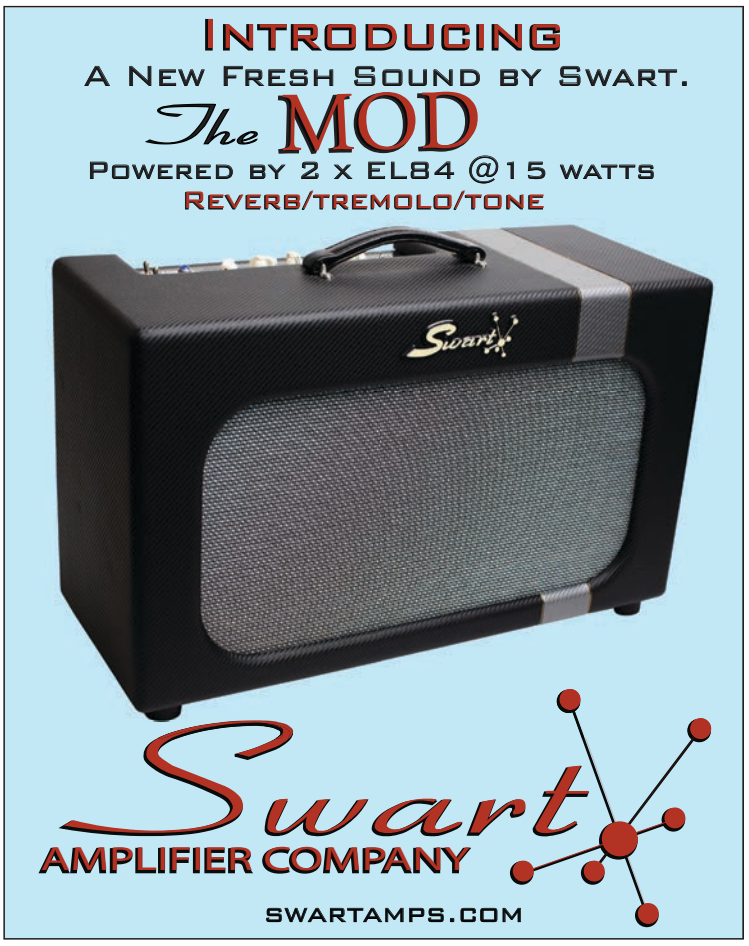
Why do you use the same guitars and pedals instead of having separate setups?

McDonald: We've tried to do that before, but it gets to be a little too much. For us it's easier just to have one dope guitar setup and one dope bass setup. Keep it simple and make sure each one is sounding solid.

Doughty: We do so much touring—it's easier in the long run of the madness of shows. We use the same pedals anyway so we just get a board big enough to fit the pedals that we want.

Does sharing equipment ever create problems onstage?

Doughty: Sometimes we'll have certain guitars we want to play and they'll get mismatched while trying to do switches. And sometimes we'll go into a song and the pedals will still be on from the last song—that first note will be like every little sound that was going on from the last song. Sometimes that happens onstage, but it's an easy fix.



You feature a lot of acoustic guitar on your albums. Why don't you use it much live?
Doughty: It's easier to use it in the studio. We have such a loud stage volume—we like to have our own show onstage aside from the show that's going on in front of the house—that way we can feel what the crowd is feeling. When you have it that loud, the volume, no matter what you do, rattles the acoustic strings and you can't play it cleanly.

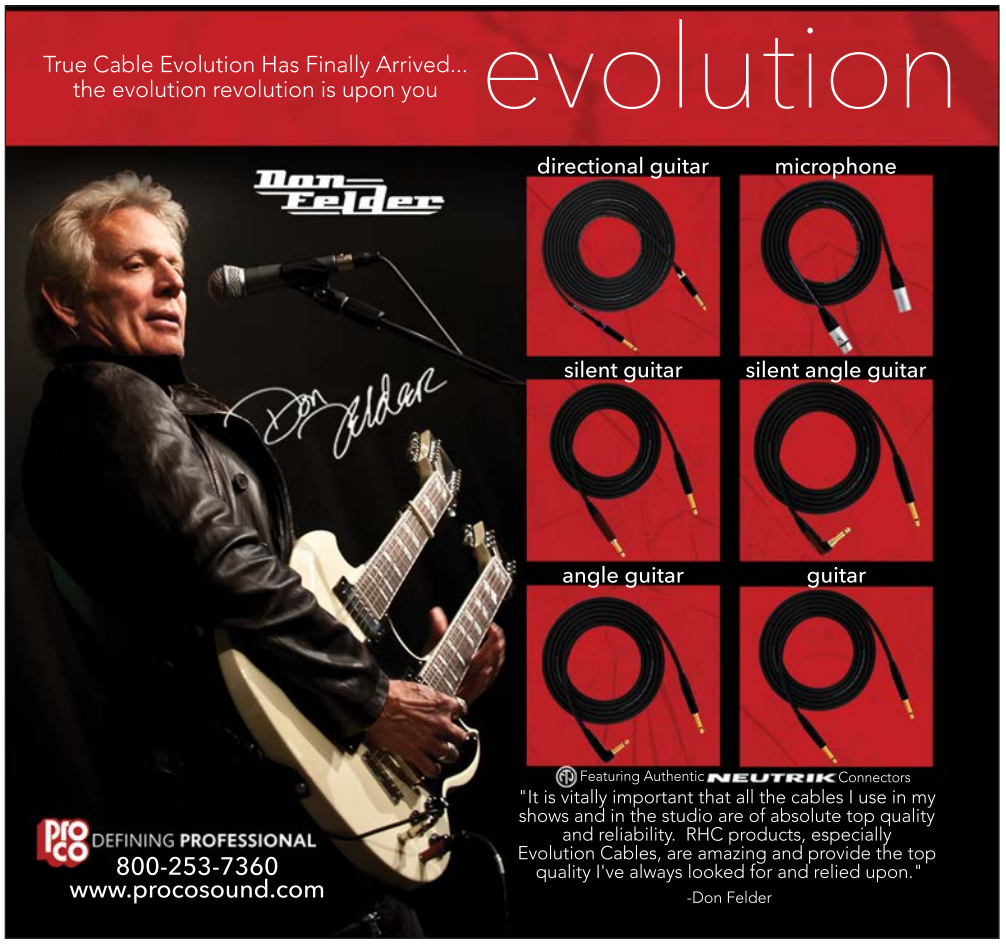
But you break it up more in the studio.
Doughty: Yeah. A lot of the reggae songs sound good when you add acoustic rhythms to them.

Acoustic has one of the greatest tones. There's something the electric can't get that acoustic has. It's fun to use it in the studio.

How do you mic the acoustics when you're recording them?
Doughty: We plug them in direct and we mic them. We don't have a booth [in our studio], we have rooms we like to record in.
McDonald: Our studio is like a big playground full of stuff. A whole wall is lined up with guitars, basses, and an array of different amps we use. I don't like to be pigeonholed into using one thing.

Do you have any interesting guitars?
McDonald: A fan of ours blows these glass guitars: The glass is hollow and you can hook a bowl up to it and smoke through the guitar. It's the most beautiful guitar I've ever seen in my life *and* it plays like butter. It sounds amazing whether it's plugged in or not and it's some killer craftsmanship.

Where do you see yourselves in the future?
McDonald: I just take it one day at a time. We really don't know any better than what we're doing. We've had our fair share of day jobs and we're grateful to be able to play music and travel around. We know we're really lucky.
Doughty: We're in this because we love playing music. We've been in this band 20 years. I've been traveling the world with my best friends and I'd love to do it for the rest of my life. We're going to keep riding the wave until the wave isn't there.

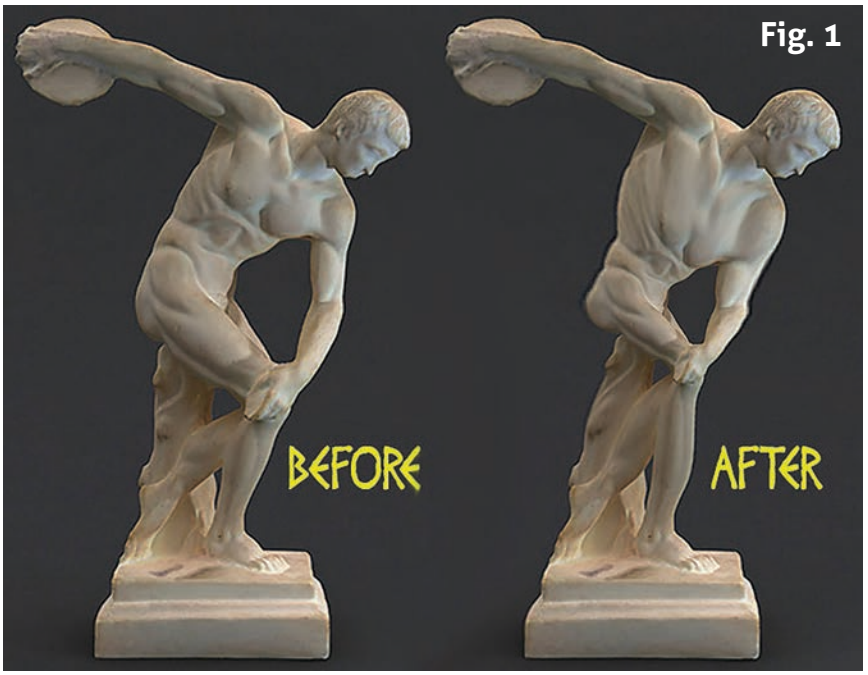


Is It a Sin to Scoop Your Mids?

BY JOE GORE

"Don't scoop your mids!"

It's probably the most frequently dispensed pearl of tone wisdom on guitar forums—and one of the most vague. Midrange is a broad topic, literally and conceptually, and those words can signify many things. So let's unpack the meanings of midrange in search of deeper understanding of how amp midrange settings affect your recorded tones.



Scooped mids (artist's conception).

Don't Touch That Dial! No, *Do* Touch It! No, Wait—Don't!

Naturally, the players who post those words usually refer to turning down the midrange knob on your amp. This is probably in reaction to sort of mid-scooped rock guitar tones that predominated in the '80s and into the '90s. Some engineers refer to this tone profile as a "smile curve," because if you call it up on a graphic EQ with multiple sliders, the result looks like a grin. (I prefer a less common—but funnier—moniker: "stoner vee.")

That '80s sound—strong lows, hyped highs, and super-scooped mids—provides a certain cheap thrill, much like cocaine, the era's studio drug of choice (or so I've been told). The sound can certainly grab your attention, though it isn't a faithful depiction of a guitar's innate sonic proportions (see artist's conception in **Fig. 1**).

You can modify mids before the guitar signal hits the recording input, or after. We'll look at precision DAW-based midrange sculpting in a future column. For now, let's focus on upstream adjustments, especially amp knob settings. But first, a quick-and-dirty review of the relevant EQ lingo.

Frets and Frequencies

The hearing range of a healthy young person is 20 Hz to 20 kHz. The A = 440 Hz we tune to corresponds to the A at the 1st string's 5th fret. Double or halve the frequency to shift by an octave: 220 Hz corresponds to the A at the 3rd string's 2nd fret. The fundamental of the open 5th string is 110 Hz. The A string on a bass sounds at 55 Hz, as does the lowest note of a 7-string guitar dropped to A. Moving in the opposite direction, the 1st string at the 17th fret rings at 880 Hz. Meanwhile, the lowest frequency emitted by a standard-tuned guitar is E = 82.41 Hz.

Note that the scale isn't linear: 110 Hz and 220 Hz are only 110 Hz apart, while there's a 10,000 Hz difference between 10 kHz and 20 kHz. But both 110/220 Hz and 10/20 kHz are exactly one octave apart.

(Sneaky soundcheck trick: If the P.A. feeds back, locate the corresponding pitch on your guitar neck and round if off to the nearest A. Then you can say intelligent-sounding things like, "Whoa! You might want to dial back that 1.5k!")

Every guitar note has many overtones ringing out above its fundamental (the lowest frequency of a musical sound, and the one we refer to when tuning). So when you lower the EQ at, say 500 Hz, you're not just dialing back notes around the seventh and eighth fret of the first string—you're decapitating those frequencies from any notes whose overtones fall into that register, including those from your guitar's lowest pitches. It's far from surgical—unless by "surgical," you mean scraping out all the guts and dumping them on the floor.

And remember, there's more to EQ than target frequencies. Equally important is the bandwidth of the slice. Removing a narrow sliver at 500 Hz is a far cry from a broad swath that's centered at 500 Hz, but which extends by multiple octaves in either direction.

One more thing: Electric guitar amps put out little signal above 4 or 5 kHz, as opposed to, say, pianos or cymbals, whose overtones extend to the top of our hearing range. Boosting or cutting highs above that point does nothing—*unless* the bandwidth is wide enough to affect frequencies below 4.5 kHz or so.

So what sorts of cuts and boosts do you get when you adjust a typical amp's mid knob?

EIGHT NEW REASONS TO WANT A FRACTAL

NEW! FX8 MULTI-EFFECTS PEDALBOARD

Up to eight simultaneous effects with famous Fractal Audio quality.
Place virtual stompbox effects between your guitar and amp.
Simultaneously place "post" effects in your amp's FX Loop.
Change amp channels with built-in relays—and much more!

QUALITY · FLEXIBILITY · CONTROL

FX8

FRACTAL AUDIO SYSTEMS

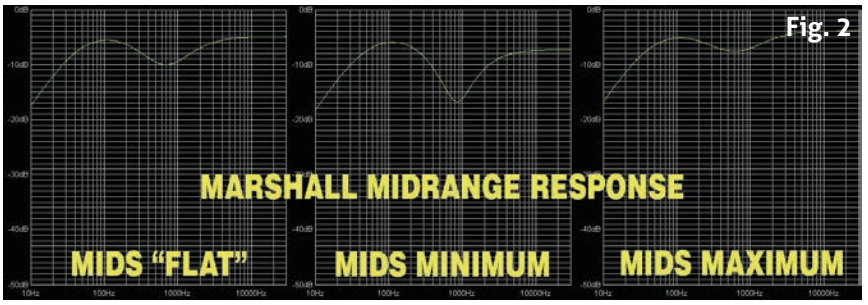
COMING SOON
www.fractalaudio.com

Midrange According to Jim and Leo

Let's turn to a cool bit of free software: the Duncan Tone Stack Calculator, downloadable at duncanamps.com/tsc. (No relation to Seymour D.) It's for PC only, but Mac users can run it via a Windows shell program such as the $59 Crossover from Codeweavers. It provides visualizations of such common tone controls as those on Fender and Marshall amps, plus that mother of all stoner vee curves, the original Big Muff.

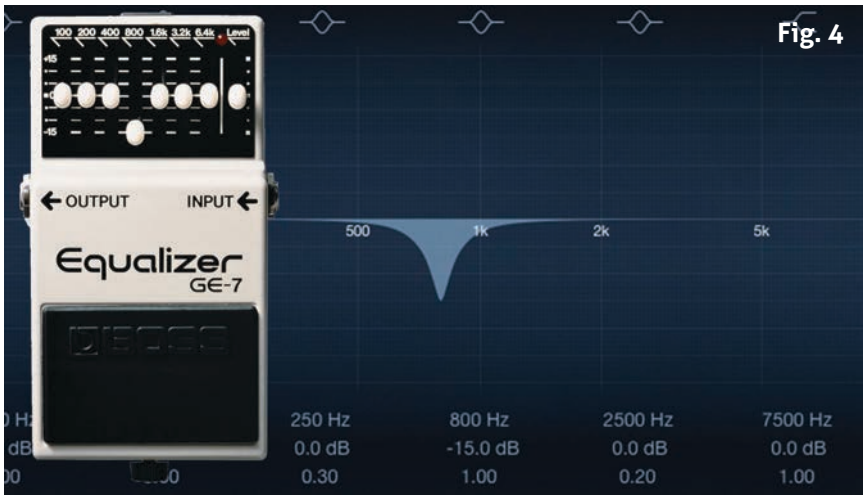
Fig. 2 shows the frequency curve of a typical Marshall amp with its mid control an noon, fully scooped, and cranked to the max. There's a big-ass scoop at around 800 Hz even when it's "flat." Hell, there's even a scoop when it's dimed! And when you lower the mids all the way, the distorted discus thrower in Fig. 1 starts to look like an understatement. It's a wide scoop, too, affecting frequencies from about 100 Hz to 4 kHz—practically the guitar's entire range.

The typical Fender midrange profile in **Fig. 3** is centered lower, around 500 Hz. Check out the middle image with its -35 dB cut, which also splashes across the guitar's entire frequency range. It's the Marianas Trench of midrange cuts! In fact, if you want to fake an amp sound using a direct-recorded guitar signal, your first needed adjustment is probably a similarly deep and wide EQ cut centered between 500 Hz and 1 kHz, even if you're aiming for a fat-sounding tone.



The tone profile of a typical Marshall amp, with the midrange at 5, 0, and 10.

The mid cut on a typical blackface-style Fender amp is even more extreme than on a Marshall.



Even a humble EQ pedal provides more precise midrange sculpting than most amp EQ knobs.

Are Scoops for Poops?

So should you avoid scooping mids on your amp? Not necessarily. It depends on the context—*duh*! Judge with your ears, not the Duncan Tone Stack Calculator. But be mindful that if you nix major mids, it's not just a bit of EQ nip-and-tuck—you're disemboweling your tone like it's a corpse on an autopsy table. Except amp tone controls are machetes, not scalpels.

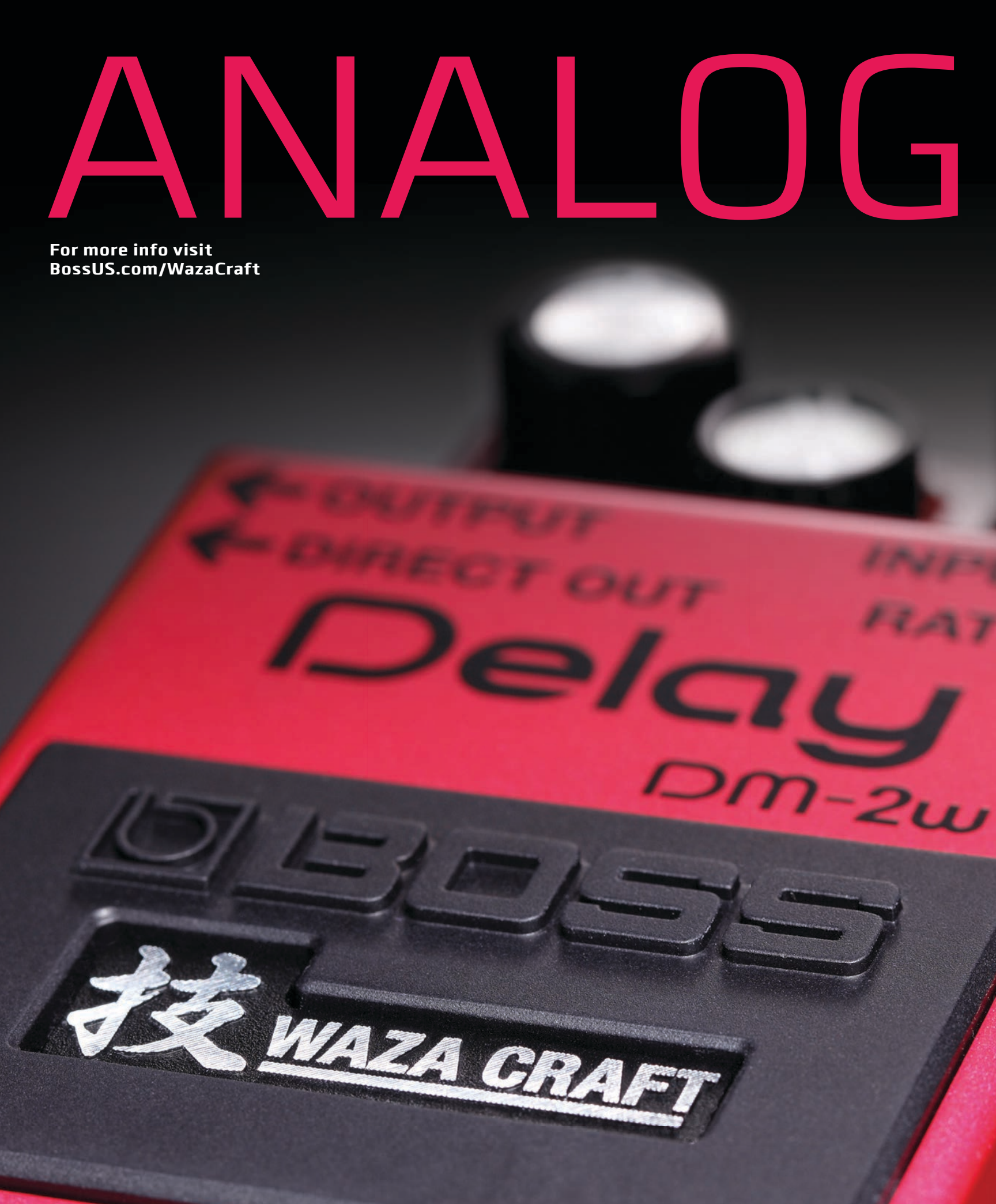
There's another way to sculpt midrange upstream from the recording input: using an EQ pedal or similar device. Some of these provide parametric EQ (which means you can specify the bandwidth of the boost or cut). Even a humble Boss GE-7 Graphic Equalizer is surgical compared to amp controls. Here the fixed bandwidth spans about an octave, as opposed to the four octaves or more affected by typical amp midrange pots. (See **Fig. 4**, with the resulting EQ curve approximated in Logic Pro's EQ plug-in). Even a maximum -15 dB cut at 800 Hz (roughly the Marshall midrange frequency) is far, far subtler than zeroing an amp's mid control.

The real precision midrange sculpting is likelier to happen within your DAW—and we'll explore those techniques in an upcoming column. Till then—it depends on the context!

JOE GORE *has recorded and performed with Tom Waits, PJ Harvey, Tracy Chapman, Courtney Love, Marianne Faithfull, Les Claypool, Flea, DJ Shadow, John Cale, and many other artists. Joe has written thousands of articles about music and helps develop music tools for Apple and other clients. He blogs at tonefiend.com.*

ANALOG

For more info visit
BossUS.com/WazaCraft



Got a Loose Screw?

STORY AND PHOTOS BY JOHN LEVAN

The other day I was replacing a pickup in my "Zombie-Caster" and noticed that several of the pickguard screws were spinning in their holes. Like many players, I change out pickups and pots from time to time. While this has many sonic benefits, it causes wear and tear on the guitar body. If screws are frequently removed and re-inserted, their threads can bore out the wood, enlarging the screw holes. Eventually the screws can become so loose they no longer secure the pickguard to the body.

Fortunately it's easy to repair stripped screw holes. Although I'll use a Strat and its top-mounted pickguard to illustrate the process, the essential technique works with any solidbody guitar. And with a little creativity, you can also adapt this doweling method to other types of screw-mounted hardware, such as pickup mounting rings, strap buttons, and truss rod covers.

Let's take a look.

Note: *This repair is intended for a "player" instrument—not a collectable, vintage guitar. The latter must be kept in original condition to maintain its value. Always consult a qualified luthier if you have a vintage axe that requires work.*

Getting started. To fix stripped screw holes, you'll need an electric drill with 3/16" and 5/64" bits, a medium tip Phillips head screwdriver, a flush cut saw, a small hammer, wood glue, and a 3/16" dowel rod made of poplar, basswood, or maple (**Photo 1**).

Once you've gathered your tools and materials, take the strings off your guitar and remove all the pickguard screws. On a Strat- or Tele-style guitar, you don't need to unsolder anything—just gently turn the pickguard upside down and lay it on the body with the wires connected.

As you remove the screws, make note of which holes are stripped. If a pickguard screw feels snug as you turn it, then leave that hole alone.

The doweling concept. I often see a patched screw hole with a toothpick and some glue shoved into it. This temporary fix may get you through a few gigs, but it usually wears out quickly. The best way to permanently repair a stripped hole is to re-drill it and then fill it with a glued-in wooden dowel.

To ensure the repair will last, the key is to use a dowel that's a bit larger than the original hole. It's a simple, two-step operation: First drill the screw hole to a larger diameter, and then plug it with a solid piece of wood. Using a 3/16" wooden dowel creates a solid "sleeve" for the screw to thread into, and this will last just as long as the original body wood.

Drill, baby, drill. The next step is to drill out each stripped hole using a 3/16" drill bit. Measure the pickguard screw, and then make a mark on your bit that's about 1/32" deeper than the length of the screw. I use a red Sharpie to indicate this depth (**Photo 2**), but alternatively you can use a slender strip of masking tape or a grease pencil. The idea here is to avoid drilling too deep a hole.

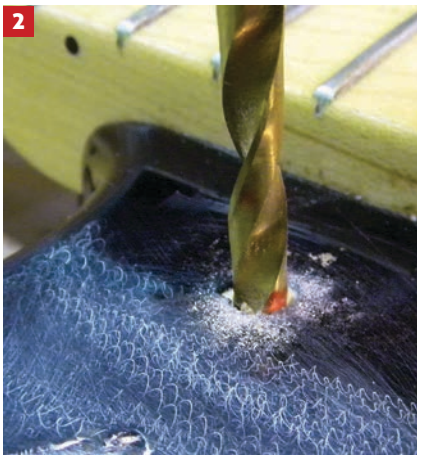
Tip: *To drill a straight hole, watch your drill bit—it should stay perpendicular to the body.*

Plugging the hole. Now it's time to prep the dowel. From your dowel stock, carefully cut off a piece that will protrude about 1/4" from the hole you just drilled. You can measure the depth using a guitar string or skinny drill bit and then transfer that length to the dowel stock.

Before you insert the new dowel piece, fill the hole with wood glue. Keep a damp paper towel nearby to wipe up any drips or overflow. For this job, I like to use Titebond II because you can mix it 50/50 with water and it will still create a very strong bond. Here's the advantage of diluting Titebond II: The thinner solution makes it easier to saturate the hole and dowel, and it absorbs deeper into the wood than if you were to use the thick formula straight from the bottle.

1

2



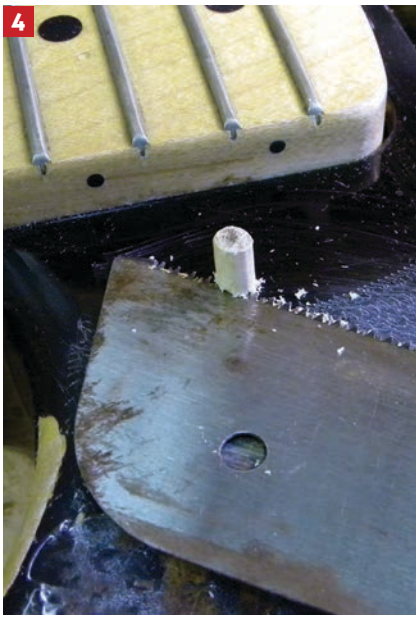
Tip: *I mix a small bottle of Titebond II and water to keep around the shop for this type of project.*

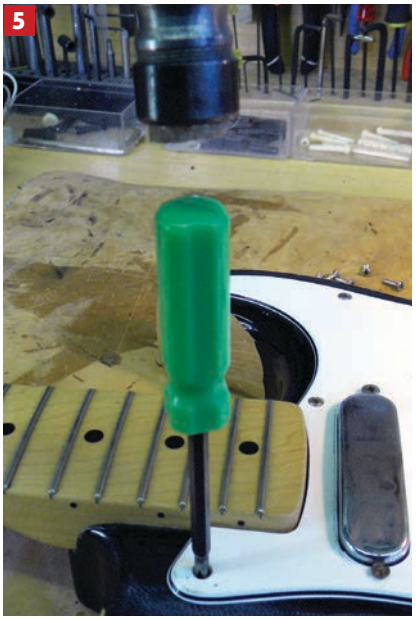
With a small hammer (preferably one with a nylon tip, like those used to install frets) lightly tap the dowel into the hole (**Photo 3**). Go easy—you don't want to splinter the dowel or have the hammer slip off and ding your guitar.

Let the glue dry overnight. If you get impatient and start drilling your new hole before the glue is fully dry, you'll have a mess and need to start all over again. (Hmm, does that sound like the voice of experience?)

Trimming the dowel piece. After you've let the glue dry overnight, it's

3


4


5

6

7

time to trim off the section of the dowel that's sticking up from the hole. There are two tools that will work for this task—flush-cut dykes or a small flush-cut pull saw. I prefer the latter because although the dykes will work, you run the risk of crushing the dowel. A flush-cut saw is very flexible, which allows you to cut the dowel level with the body. To avoid scarring the exposed finish, keep the blade pointed toward the area that will be covered by the pickguard (**Photo 4**).

Drilling the new hole. Once the dowel is trimmed flush, put the pickguard in place and line it up with the screw holes. Install the screws into any holes that were not doweled.

Next, using the pickguard as a guide, make a pilot hole for your 5/64" drill bit by lightly tapping the dowel with a medium Phillips screwdriver (**Photo 5**). Its tip leaves an imprint in the dowel—perfect for centering your drill bit and keeping everything aligned correctly (**Photo 6**).

Okay, you know what comes next: Re-drill the new hole using a 5/64" drill bit. But before you hit the on switch, measure the screw and mark the bit, so you know how deep to drill (**Photo 7**). Typically this will be about 3/8".

After drilling out each new screw hole, install the remaining screws. If the tops of any screws are worn, replace them with new ones. On a worn screw, the metal can corrode and weaken over time, especially when the screw begins to rust. The last thing you need is to strip out the head, or worse yet, break it off orphaning the shaft inside the body. Pickguard screws are inexpensive, and you'll save time, money, and aggravation by replacing them before they fail.

Slowly tighten the pickguard screws. Don't go all Tarzan on them, just make them snug. (Ever wonder how screw holes get stripped to begin with?) Once you've secured the pickguard, it's time to clean up—you're done with this project.

JOHN LEVAN *has written five guitar repair books, all published by Mel Bay. His bestseller,* Guitar Care, Setup & Maintenance, *is a detailed guide with a forward by Bob Taylor. LeVan welcomes questions about his PG column or books. Drop an email to guitarservices@aol.com.*

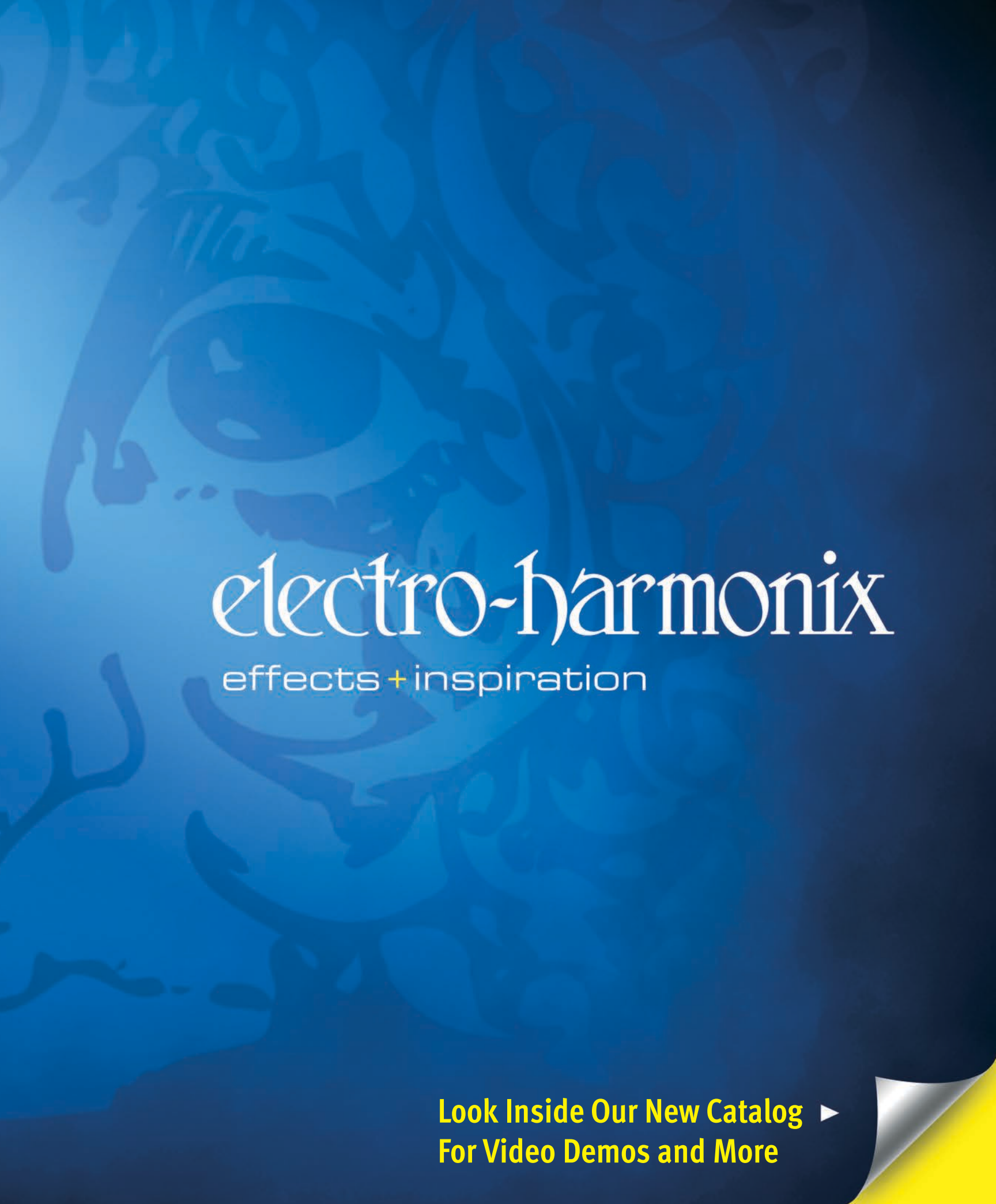
REVERSE
OCTAVE
A
68
22500
dual stereo looper
REVERSE
OCTAVE
B
RHYTHM
L
LOOP A
LOOP B
electro-harmonix
NEW YORK CITY, US

SUSTAIN

DRY
VOL
KEYS
OUTPUT
DRY
XO
electric
piano
machine
CTRL 1
CTRL 2
1 DYNAMO
2 WURLI
3 SUITCASE
4 MALLETS
5 EIGHTY EIGHT
6 TRI-GLORIOUS
7 VIBES
8 ORGAN
9 STEEL DRUMS
INPUT
electro-harmonix
NEW YORK CITY, USA

TREBLE
Soul Food
AMP

BLEND
SHIFT
DUAL
LATCH
OUTPUT
EXP
INPUT
PITCH
FORK
electro-harmonix
NEW YORK CITY, USA


electro-harmonix
effects + inspiration
Look Inside Our New Catalog ►
For Video Demos and More

Fulltone®

the finest guitar & bass effects since 1993.

*Two separate pedals in one: Overdrive and / or Clean Boost w/ Germanium Limiter.

*Order-Switch: Choose OD->Boost or Boost->OD.

*Hi-Z JFET input, ultra Lo-Z JFET buffered-output for no tone-loss with today's busy rigs & long cable runs.

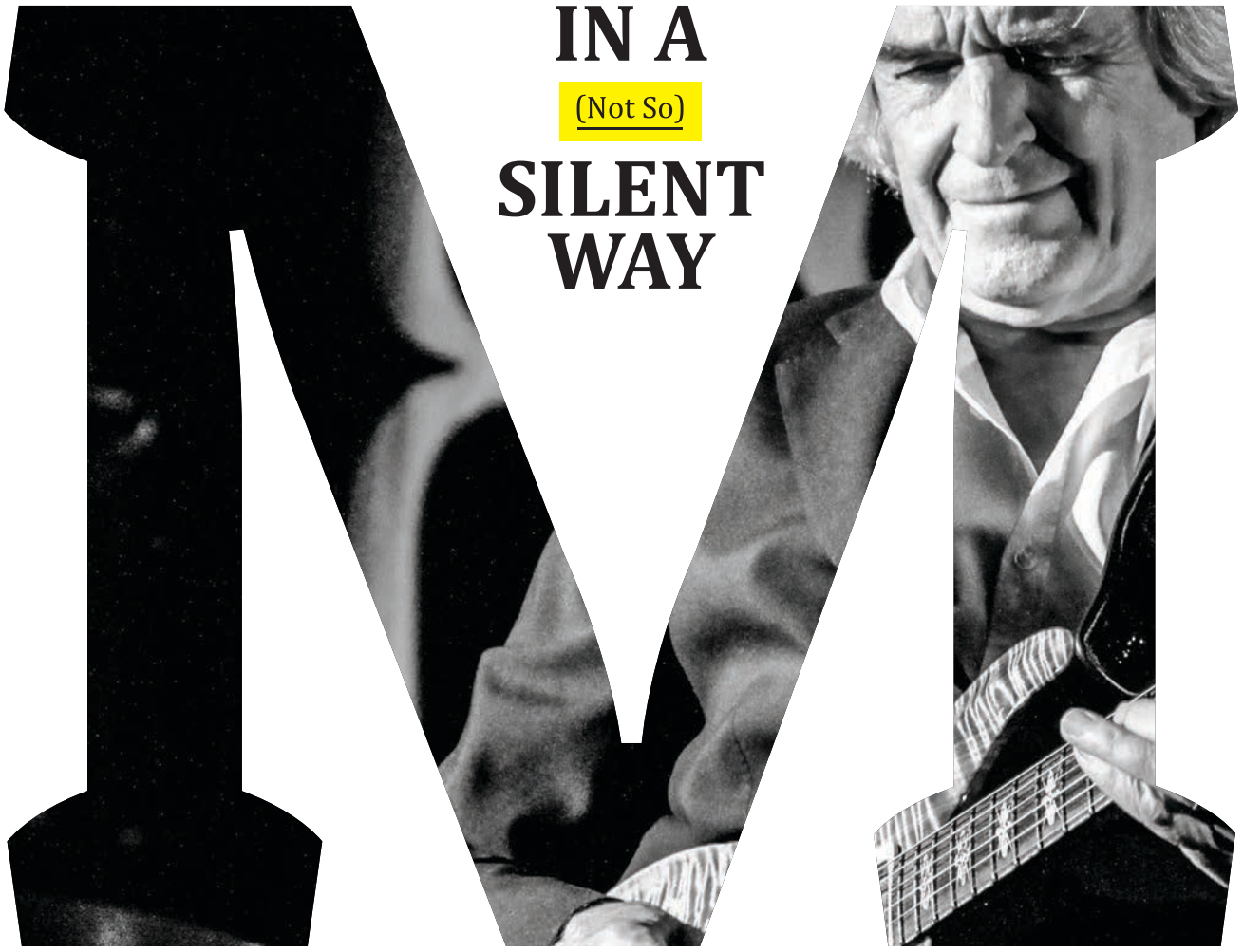
*90's, Wide Asymmetrical, & Comp-Cut switchable clipping modes.

*Hand-Built in Los Angeles, USA.

*20% smaller than the FD2, street=$144

http://www.fulltone.com

IN A (Not So) SILENT WAY



With Black Light, *legendary fusion guitarist John McLaughlin celebrates six decades of forward-thinking, electro-inspired music.*

BY JASON SHADRICK

Even six decades into a legendary career, John McLaughlin is as fierce and passionate about playing guitar as he was when he picked it up in 1953. Young McLaughlin had already been playing piano for three years before his parents got him an acoustic. "I didn't even know what an electric guitar was," he remembers. Luckily for music fans everywhere, McLaughlin not only discovered the electric guitar but also used it to influence generations of musicians and create a singularly identifiable style that blends high-energy rock with sophisticated harmonic, melodic, and rhythmic elements.

It wasn't long before such jazz luminaries as Tony Williams and Miles Davis brought McLaughlin into their bands. Williams' landmark 1969 album, *Emergency!* was an early demonstration of how McLaughlin's jazz chops and rock ethos could transform an organ trio into a three-headed muscle car of improvisation. During the '70s, Davis (who was notorious for disdaining the guitar) formed an electric band, brought on McLaughlin for the iconic *Bitches Brew* and *Jack Johnson* albums, and helped lay the foundation for the fusion movement that gained popularity during the decade. Even while staying busy as a sideman, McLaughlin released solo albums and projects that included the rich acoustic sounds of *Belo Horizonte* and the game-changing Mahavishnu Orchestra.

Now 73, McLaughlin recently released *Black Light*, a work that combines the virtuosity that has symbolized his style with electronic elements and other-worldly soundscapes. In short: it's not your typical "fusion" album. The muscular opening track, "Here Comes the Jiis," features McLaughlin's smooth, amp-free tones and rapid-fire melodies skimming over a mix of drummer Ranjit Barot's propulsive rhythms and electronic sounds that wouldn't be frowned upon at a Skrillex show.

Throughout *Black Light*, McLaughlin creates harmonically complex compositions by seamlessly weaving elements of live performance with pre-recorded sounds. "The sounds have to mean something. You can get a sound, but you have to make it your own," says McLaughlin about the work-intensive process. We recently caught up with McLaughlin to discuss how he approaches composition, his deep love of rhythm, and his touching tribute to famed flamenco guitarist, Paco de Lucia.

Photo by Chris Dorr

Indian rhythms have been an integral part of McLaughlin's music since studying with Ravi Shankar in the 1970s. "All rhythm, in the end, is just mathematics with a beat and some sex in it," laughs McLaughlin.

This album is full of energy. Even on multiple listens it holds up with some of the best work you've done.
Yeah, there's a lot of energy. But I don't really think of it as energy. I think of it more of how much passion is in the band. We're old school, especially me. We're not part of this "smooth" jazz movement, if you know what I mean. Basically, we feel if there's no passion in the music, there's no gas in the tank. Look at the passion Miles played with. The passion equals energy. It's beautiful to feel that in the music. It's very important to me.

It's inspiring that you're hitting at this level in your seventies.
I'm an old hippie [*laughs*]. Thank God, I'm still playing. It's wonderful that I'm still able to continue, but the machine is getting older. I'm happy to have been a musician my whole life and to still be a musician. I don't think there's a better privilege, frankly.

***Black Light* can be viewed as the third album with your latest working band, the 4th Dimension. How did this specific group come together?**
Actually, it came from an idea I had over 10 years ago. I was very lucky because I got this invitation from Réunion Island, which is near Madagascar. They said I could bring whatever band I want. This was the chance to put together this quartet that I had bubbling in my mind for a while. The only member remaining from that original lineup is Gary Husband, who plays everything—keyboards, drums, percussion. What an unbelievable musician he is. I knew him from his work with Allan Holdsworth. I also called the Mondesir brothers, [drummer] Mark and [bassist] Mike. Mark played in the group for a while, but Mike was only on that one gig.

Did you start recording and touring with that band right after those gigs?
Right after that gig I came back to finish *Thieves & Poets*, which was a huge job for me since it involved symphony and guitar. I got the group back together to do some tracks for *Industrial Zen*. So we've been a working band for about nine years, at least. There have been a few personnel changes, but the current band with Étienne M'Bappé on bass and Ranjit Barot on drums has been together for about three years.

Over the years you've brought a lot of traditional Indian influences to your music. Ranjit seems like such a natural bridge between several different genres.
Yeah, he was on *Floating Point*, which I recorded in India. I really like that recording and it features some young Indian players that are just killing. We'd been hanging for a while and I finally got him in the band because he's very busy working with a famous Bollywood musician named A.R. Rahman. In a way, Ranjit was made for this band.

Watching a YouTube video of a recent concert you did, I was really impressed with Ranjit's vocal abilities.

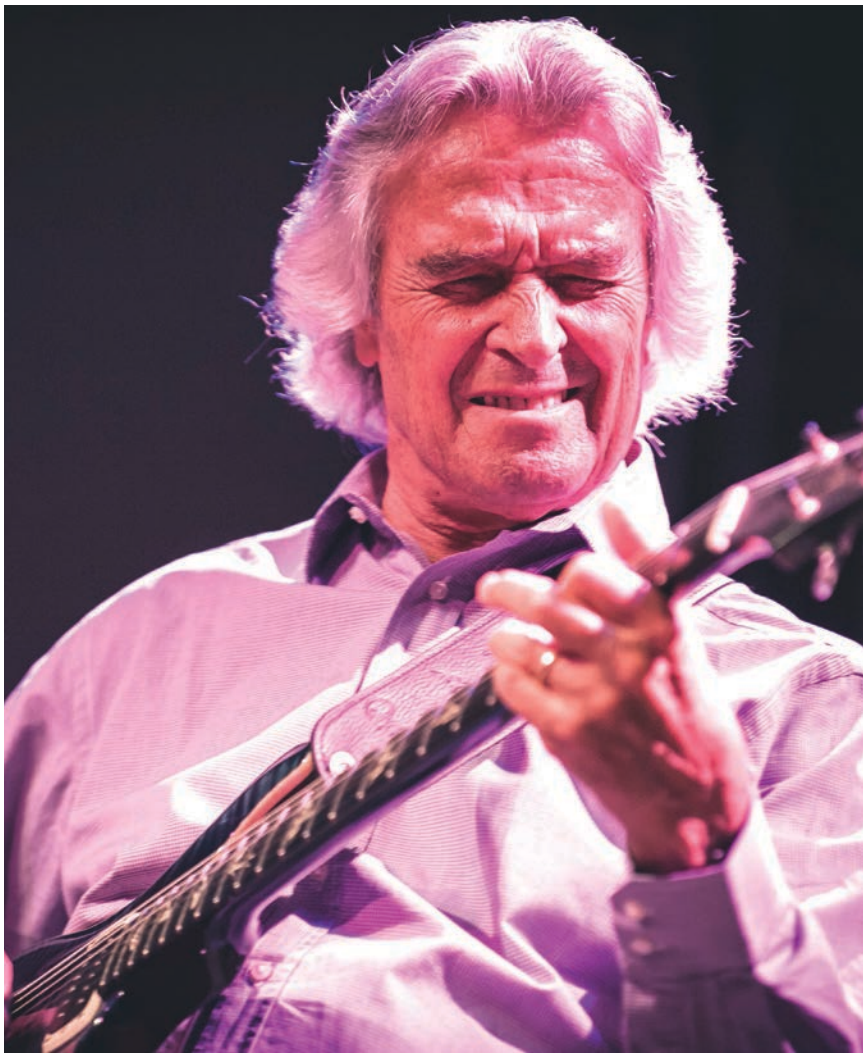


Photo by Vikas Nambiar

YOUTUBE IT

This complete concert from 2012 shows how McLaughlin and his band of virtuosos tackle blazing jazz-rock on the opening track, "Trancefusion." Dig the dynamics during the start of McLaughlin's solo at 0:57.

YouTube search term: John McLaughlin & The 4th Dimension FULL CONCERT 2012 - Live at 33. Leverkusener Jazztage

Boutique Brown Sound!

Booth#: HALL E4 D32 | We sincerely welcome you to visit us!

MUSIC CHINA 2015 (Shanghai) | Oct.14 -17 | Shanghai New International Expo Centre

During a recent event to celebrate PRS Guitars' 30th anniversary, McLaughlin sat in with fellow PRS endorser Jimmy Herring and the Aquarium Rescue Unit. "I don't know anyone who plays like Jimmy," raves McLaughlin.

Photo by Victoria Selman

Oh yeah. You can hear a few places on this album where Ranjit sings in konokol, which is a way to vocally express rhythm. I studied that system with the late, great Ravi Shankar in the mid '70s. He took me under his wing just like that. I wasn't even playing sitar. I was in New York at the time and anytime he came to New York he'd call me and he would teach me. One day he said he was going to really show me some theory. And he taught me that system of vocal rhythm. If you can sing it, then you can play it. All rhythm, in the end, is just mathematics with a beat and some sex in it. [*Laughs.*] You've got to be rhythm crazy to like that stuff, and I am.

When you're performing, how does rhythm affect your improvisations?

Rhythm is rhythm. Whether it's Brazil or Africa or India or New York. The big thing is if it's swinging, or is it funky, or does it *move* you. That's the whole thing. And the great ones always do. They always swing, but I don't even know what jazz music is anymore. The whole point of playing live is that everyone is playing with the drummer. You *have* to be with the drummer. To play with a drummer you have to know what the drummer is doing and understand and feel the way he feels rhythms. He's waiting to be provoked just like I'm waiting to be provoked. When I go onstage, I want the drummer to provoke me and stimulate me. But at the same time he needs stimulation. I have to understand the rhythm so I can kick his butt too. We all need this kind of stimulation to get out of the ordinary "what you know." In improvisation, which is the real key to playing collective music, there's spontaneity, and without the knowledge of each other and the knowledge of the rhythm, it's very difficult to develop the kind of complicity to be able to improvise together. Even if there's only one chord, it doesn't matter. You've got to have that thing together. That's all that counts. Being together.

Did you record this album in your home studio?

Actually, we did it in a couple of different places. Part of it was done at home. I live in Monte Carlo and I have a studio in my home. Not a big one—it's enough to record. Then we did some in London and Paris. Gary lives in London, so we went

there to do some of his recording. Étienne lives in Paris, so we did some there.

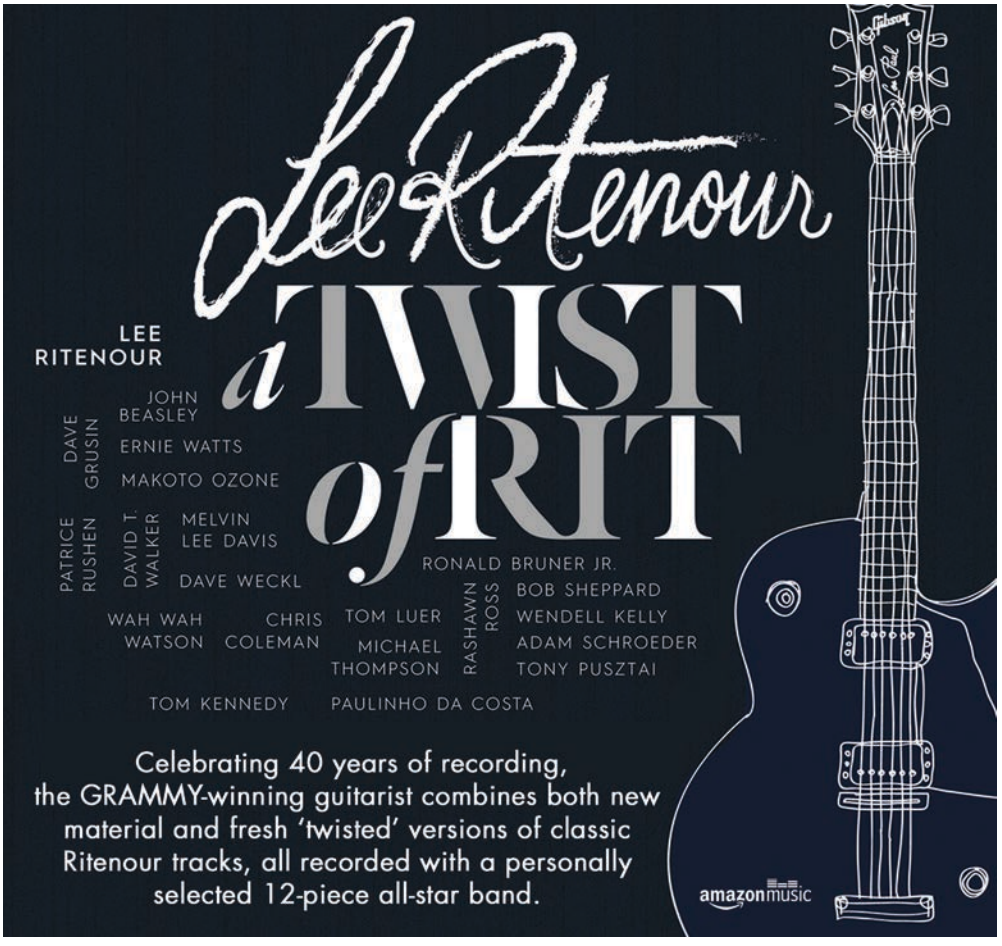
In some parts, this record has that visceral live-in-the-studio feel and in others, you can sense these expansive soundscapes. Were you all in the same room when you recorded?

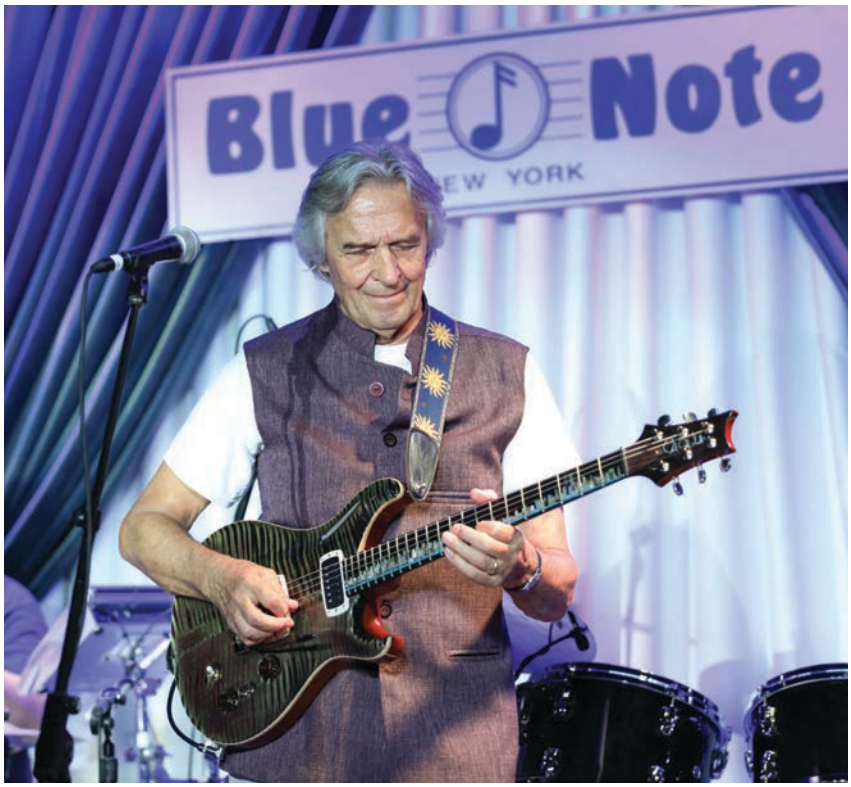
No, not all the time. Part of the problem for Étienne was he had an operation on both his hands. It was really difficult. He needed about six weeks to recover and because we were running a bit late, we started to record without him. Basically, the bulk of the recording was done in London where we were all together, except for Étienne. We traveled to Paris to record his parts.

On *Industrial Zen*, I did a lot of pre-work with sound design and layers I wanted to use. This album, in a way, is an extension of that work because you can hear in the music that there are passages where we really aren't playing. There's sound and layers with some playing going on behind. That's part of the dynamic where you move out of a group sound to another dimension. It's a lot of work, actually, to prepare the sound design. You have to make it personal. But I'm very happy with how it came out with this combination of unusual dimensions and some really serious playing going on. There's a lot of stuff going on, but at the same time I don't want to be just permanently intense and full volume. We have to breathe, and the dynamics are really an important part of the music. To have that intensity of the playing, which is really personal and totally spontaneous, then all of a sudden you move out and it's like this floating sound that takes you to another place. I really like that and the effect it has on me.

With so many moving parts within a particular composition, how do you present the tunes to the band when you go in the studio?

As far as the compositions, I can't just sit down and write music. That might be why I don't make records every year. I have to wait for the music to come to me. The music arrives and the form arrives, but what





Six decades into his career, McLaughlin is showing no signs of slowing down—or using traditional amps.

JOHN McLAUGHLIN'S GEAR

GUITARS

PRS McCarty Violin
PRS Private Stock Signature Ltd.
Abe Wechter nylon string

EFFECTS

Seymour Duncan SFX-03 Twin Tube Classic
MXR Stereo Chorus
MXR Carbon Copy Delay
Hermida Audio Zendrive 2
Fishman GuitAero WGS6000-RX
Mesa/Boogie V-Twin

STRINGS & ACCESSORIES

D'Addario strings
Line 6 G30 Wireless
Korg Pitchblack tuner
Dunlop DC Brick

I'll do is draw out a sketch. For Gary, I might say, "This is the harmonic structure, but when it's time to play, go where you want and take it where you want." With the drums, I'll use konokol and sing the rhythm. For example, in "360 Flip," even though it sounds a little strange, I had Ranjit change the beat around a bit. He follows these directions, to a certain extent, and then integrates them into his own playing. But once the improvisation starts, that's it. Everyone's free. I want them to be who they are. It's very important to me for them to have space to express themselves in the way they want to.

Did you use your custom PRS on this album?
Oh yeah—what a beauty. I have another one Paul gave me that I used for the guitar synth on the melody of "Gaza City." Synth guitar makes me play in a different way. I don't want to play it all the time—I like the electric guitar or the acoustic guitar. But usually, I'll bring it out for one track on a studio album. It makes me think differently, and I like that.

How does it make you play differently?
Basically, I'm a simple guy. I always use the same kind of sound that is a little flutey. It's a very simple tone, not complex at all, but it reacts to the whammy bar very nicely. It reacts in a very subtle way and I'm able to express things with that sound. For me, it's a totally different instrument, I just happen to control it with a guitar. The minute I hear the sound I play differently. It's not that I want to play differently, it *makes* me play differently. It's really strange, but I like that. It's like playing with a great drummer, keyboard player, or bass player. They all stimulate you in different ways. I generally don't take it on the road, although I did with Shakti from time to time. It seems to work best in the stability of the studio. I've been on tour with it, and one day it works great and the next it just wobbles. It's really temperamental, so I'm very nervous about taking it out on the road.

What synth are you using?
I'm just using Apple Logic. It's a sound that I found in the ES2 [virtual analog synth] and I've been working on it for, I don't know, 10 years? And I'm still tweaking.

You've been known to not use traditional amps for your tone. Was that the case on this album?
I'm a little old to schlep an amp around. On the album, I used the Seymour Duncan Twin Tube Classic. It's pretty much that along with an MXR Stereo Chorus and an MXR Carbon Copy delay. I really like those pedals. As far as wireless units, the Line 6 is great. It even has a switch to give you a virtual cable ... far out.

Recently, you got to play with Jimmy Herring at a PRS event. He's a huge fan of your work and has cited you as a major influence.
He's a *very* special guitar player. Not only is he a great guitar player, but one of the sweetest human beings I've ever met. Don't tell him I told ya [*laughs*]. I remember when Chick Corea called me once and said, "Hey man, do you know

a good guitar player?" I had just heard Jimmy and told Chick about him. I hooked those two up and Chick flipped when he heard Jimmy play. Chick invited him into his band and Jimmy couldn't do it. He's a busy guy. I wish there was a way for them to work it out because when you play with musicians like that, you level up. But Jimmy's got his own priorities and obligations. I think it was for a Return to Forever variation and Chick needed some rocking guitar. And Jimmy's got it.

He recorded one of my tunes on an album ["Hope" on *Subject to Change Without Notice*]. It was a tune that I never improvised on, only played the melody. When I heard the solo he played on that tune I said, "Holy moly. I should have played a solo like that." He's something else. I wish he was more known in Europe. I don't know anybody who plays like Jimmy.

"El Hombre Que Sabía" is a wonderful tribute to the late Paco de Lucia. Was that originally composed with his memory in mind?

Paco and I were supposed to record last year but on February the 25th, it was all over. This was one of the pieces that he really liked, so I thought, "Well, I'm going to just make a homage to him." That was one of the tunes we were supposed to record. I sent it to him just before he left for Central America, which is where he died, in Mexico. A couple of days before he left he called me and said, "Juanito, this tune. I really love this tune." I said, "Great. We'll record it when you come back." And of course, he never came back. It's a really personal homage. The title means "The Man Who Knew." Paco knew, all right.

When did you first meet Paco?

I met him in Paris in 1978. A long time ago, man. I heard him on the radio and I was able to get a hold of him and said, "Let's get together and play. And not just make a record. We need to work." We jammed, just the two of us, and he asked what my plans were. I thought it would be great to have three guitars, and I'd spoken to Larry Coryell—we go back to the '60s. I told Larry, "I'm sitting here with the greatest flamenco player ever, and I'd like you to come in." That was the first trio. We toured Europe in '78 and '79, and it was amazing. But Larry had to leave because of personal issues. It was really a shame because he's a lovely guitar player and a great musician. And Al [Di Meola] had already done some recording with Paco, so he suggested we call him. That was the first time we toured the U.S. and during that tour we recorded *Friday Night in San Francisco*.

You and Paco did some touring on your own, right?

Yeah, we did duo tours in Europe. There was a tour we did in the mid '80s, and one of the concerts was in Switzerland at the Montreux Jazz Festival. That recording will be coming out at the end of the year. It was a fantastic night—you can hear it. I know the guitar trio was special, but Paco and I … on that album you can hear what a long friendship can bring you.

Discover the true potential of advanced stereo tremolo. Out of the box, the **Vertigo Tremolo** delivers three vintage trem effects with amazing warmth and versatility, but connect the Vertigo to the **Neuro Mobile App** (a free download for iOS and Android) and access a comprehensive library of progressive tremolo algorithms and hybrid modulation effects. Spiral into the thumping and hypnotic world of the Vertigo Tremolo.

LEARN MORE ABOUT NEURO TECHNOLOGY AT SOURCEAUDIO.NET

SOURCE AUDIO

Unlearn Your Bass

BY VICTOR BRODÉN

By routing the nut a little deeper, a 4-string bass with a solid neck strung B through D can be a great alternative to a 5-string bass.

Guitarists have all kinds of fun with alternate tunings. Most of my guitar-playing buddies have one guitar tuned in standard, one guitar tuned a half-step down, sometimes a guitar tuned a whole-step down, one tuned to open G, and often a guitar tuned with one of their own "secret" tunings. As bassists, we usually have a bit more conservative approach to alternate tunings.

Playing a 4-string bass exclusively from age 12 to 28 certainly left its mark on my brain. Throughout *all* my musical education, a 4-string bass tuned E through G was really the only way I would play—with two exceptions. My first adventure outside standard tuning occurred in my teens while playing in a heavy metal band where we all tuned every string a half-step down. We just referred to the E♭ as an open E, so no additional thinking was involved.

I was enthralled with Billy Sheehan instructional videos around the same time, so I subsequently had a Hipshot Xtender detuner installed on my treasured '58 reissue Precision. It opened up an entire new world where the octave suddenly appeared on the same fret, but two strings apart. Even though dropping the low-E string down to D while keeping the rest of the bass in standard tuning felt exciting, I also remember a feeling of comfort coming over me every time I flipped the Hipshot lever back up to E.

When the gold-themed set design was announced for the tour I'm on this summer, I contacted the company that makes all my basses and asked if they had a gold instrument available. I've played 5-string basses almost exclusively the last 15 years, but the only one they had for me was a 4-string. I use the low-B string quite a bit in every song, so I figured I would just string the bass B through D and move all the higher melodic passages up five frets and down one string. Problem solved, right? Since I'm quite fast with transposing keys on the spot, I assumed I'd have no glitch by just playing the lowest four strings of the 5-string I'm used to. I was wrong …

I hit a few clams the first few nights. I *still* have to think about it when I play and I'm about 20 shows into playing with the "Low Four" bass. It turns out that when I play the highest two strings, my brain somehow gets the pitch reference by looking at the bass from the ground up, instead of from the head down (the way I get my pitch reference on the lowest two strings). I had no clue my brain worked this way until I found myself thinking that the 3rd fret of my 4th string was a B♭ instead of an F, which it is on the Low Four bass.

The lesson here is that we bassists sometimes think in patterns more than actual music.

The lesson here is that we bassists sometimes think in patterns more than actual music. Flea from Red Hot Chili Peppers says he likes to hum a bass line before picking up his bass to write one, because he doesn't want to get stuck in his patterns. This is a fantastic technique that will help make sure you play *music*, not patterns.

This experience has inspired my want for a 3-string bass. (Tony Levin did this years ago.) My experience has also inspired me to want to play a *2*-string bass, which was made popular by my fellow Scandinavian, Stig "Stigge" Pedersen from the Danish hard-rock band D.A.D. For many of the shows I do, I'm fairly certain I could get by with just the low B and E strings. However, playing an instrument like that and the Low Four I'm currently using requires astounding intonation. That's because a lot of higher-register playing becomes *extremely* high-register playing on thicker-gauge strings, which is harder to do *really* in tune in the first place.

Let's do some exercises to confuse those of you who don't want to try fewer strings, or for those who want a challenge. First, tune your bass to D–G–D–G. Once your brain gets the layout of the top two strings, it can reapply the same patterns and principles on the 3rd and 4th strings. This is also a warm up for the next exercise: tuning your bass in fifths instead of fourths. Mandolins and violins are tuned in fifths, and tuning your bass this way *completely* challenges everything you know and practiced so far in standard tuning. (As an added benefit, you'll be able to play some mandolin if you can fit your big bass fingers on the fretboard.)

To further mess with your mind, try tuning every other string a half-step down while leaving the other two strings untouched. Then flip that concept on its head and tune the two strings that were a half-step under to a half-step *above* their standard tuning.

These exercises aren't designed to learn your fretboard better. They are designed to *break* the patterns you worked so hard to learn and make you play actual music. They're also a great way to feel like a beginner in two seconds. And speaking from personal experience, it's a healthy feeling. Try it!

VICTOR BRODÉN *is a Nashville bassist and producer who has toured and recorded with more than 25 major-label artists, including LeAnn Rimes, Richard Marx, Casting Crowns, and Randy Houser. You can reach him at vbroden@yahoo.com.*

THE MOST BASS-FRIENDLY DI EVER CREATED

Portable and potent, the Ampeg SCR-DI is not your average DI box. It's a true Ampeg preamp, with a huge range of classic Ampeg tones that includes the tone-shaping power of Ampeg's famed Ultra-Hi and Ultra-Lo circuits. It's a powerful overdrive stomp box, with the grit and grind you crave. It's the ultimate practice tool, with phones out and aux in for solo, silent practice anywhere. And, yes...it's a killer DI that ensures both you and front-of-house get every drop of your tone. Good bassists play in the pocket. The very best have Ampeg in their pocket wherever they go.

"The SCR-DI has the punch, growl and low end of an SVT with the versatility and rugged construction you expect from Ampeg. Looks like some other pedals are getting retired to make way for the new boss."

JUAN ALDERETE
The Mars Volta / Deltron 3030 / Pedal God
www.pedalsandeffects.com

THE ROUND SOUND
ampeg.com

Copyright © 2015 LOUD Technologies Inc. All Rights Reserved.

Mysterious Magnetism

BY HEIKO HOEPFINGER

Wouldn't it be great if we could actually see those magnetic flux lines?

There's a myriad of little helpers, gimmicks, and parts that claim to improve bass tone, and all of them cost money. And then there are the free ones that will only cost you a bit of your time, but nobody really uses them. Raise your hands, low-enders: Have you ever adjusted your pickups? Just as I suspected. And typically for those who have adjusted pickups, the thinking goes something like this: "Okay, the pickup isn't quite touching the strings, so this is as loud as it can go. Adjustment done!"

If this "setup" yields an unconvincing sound, many of us are tempted to replace our existing pickups with new ones we finally found after spending nights on a forum. These new pickups are hyped by people we've never spoken to, let alone heard play. But we all love shopping for new toys, right?

I'll propose an alternative: Before spending cash, why not spend some time on an easy DIY job? Let's find out what your axe is capable of as it's currently configured.

Michael Faraday discovered electromagnetic induction in 1831, while trying to invert the then-known electromagnetic principle—an electric current creates a magnetic field. He realized a magnet could create an electric current, and this is the principle behind all magnetic pickups. Thank you, Mr. Faraday.

Still, as with all those things we can't see or have any sensors for, it's hard to imagine what magnetism is. Even electricity isn't as obscure, as anyone who has ever strayed too close to a power outlet can attest. That's a sensor of sorts.

But back to pickups and applied magnetism: Magnetic forces—and therefore the resulting signal—are highly dependent on the distance between string and magnet, specifically one of its poles.

Case 1: We love loud, so we try to get the pickups as close as possible to the strings without touching them. The first side effect? Increased magnetic pull eats sustain from our strings. (It's worth noting that the pull is always there, whether you're using that pickup or not.) And the second side effect: This higher pull influences the way the string vibrates. The vibration—consisting of the fundamental and its upper harmonics—becomes less ideal, shifting the upper harmonics away from being discrete multiples of the fundamental. If that seems too mathematical, try this: It sounds wrong and out of tune, like a broken chorus. Ask your guitar friends—they experience this more often. Of course, very close setups can work without the above effects if the pickup has weak magnets, such as are often used in active pickups.

Case 2: If there is a "too close" scenario, there will surely be a "too far" counterpart! Let's skip the extreme case where we get no signal at all and see what we can expect at real-world distances. Besides an increase in sustain and more natural-sounding upper harmonics, there is also the unavoidable loss of output. This is usually no big deal, as we can compensate for it by cranking up our amp's input gain. Unfortunately, we also decrease the signal-to-noise ratio. In other words, there's a constant amount of noise that gets increasingly amplified as we compensate for the decrease in output volume. This can be a problem with non-humbucking systems, as well as the currently popular bass distortion effects that focus on the noisy edge of our tonal spectrum.

Ultimately, the final adjustment has to be—once again—a compromise. And so far, we've only addressed the unavoidable magnetic effects, not the role different setups can have in our search for tone. And once we start looking for tone, there are also things like string-to-string and pickup-to-pickup balance we have to keep in mind.

With thousands of slightly different pickups available, there won't be a simple answer to what's best. There's a lot to explore and experiment with, but it will only cost you some time to get the most of what you already have. The strategies for this differ, but let's see if there are some basic principles to help you reach this goal. Stay tuned.

Simplified pickup diagram

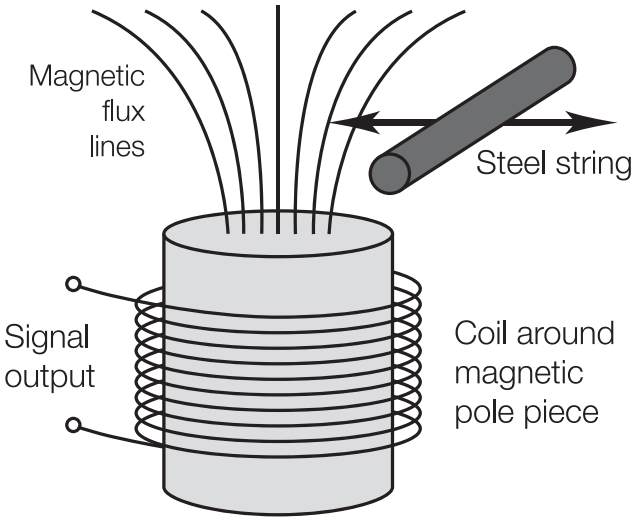


Image courtesy of Gregg Stock and Strymon

HEIKO HOEPFINGER *is a German physicist and long-time bassist, classical guitarist, and motorcycle enthusiast. His work on fuel cells for the European orbital glider Hermes led him to form BassLab (basslab.de)—a manufacturer of monocoque guitars and basses.*

FUZZ

Bassist, Felix Pastorius

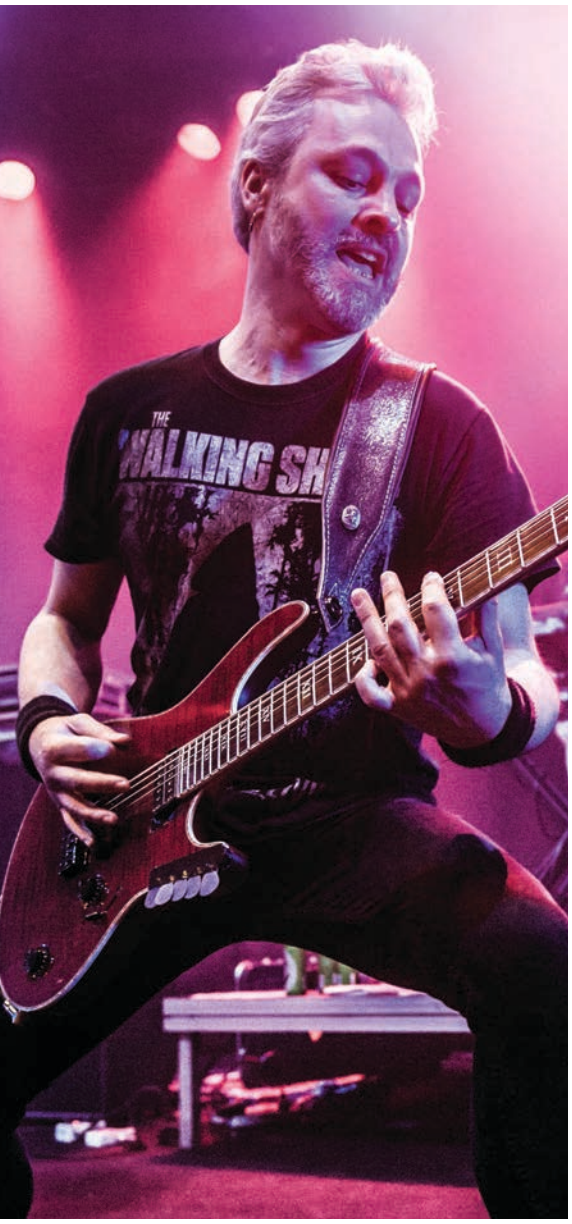
aguilar®

www.aguilaramp.com

D'Addario
PLANETWAVES
NO SOLDERING.
NO HASSLES. NO EXCUSES.
PEDALBOARD CABLE KIT
DIY SOLDERLESS PEDALBOARD CABLE KIT
The D'Addario DIY Solderless Pedal Board Cable Kit is the ultimate solution for custom wiring your pedalboard. Simply cut the provided cable to length, place it into the plug end, and secure the set screw for a flawless, performance-ready sound.
▪ Solderless plugs connect to cable in seconds for custom lengths.
▪ Patented Geo-Tip™ provides the most secure connection possible.
▪ Optimized capacitance for purest, truest tone.
daddario.com

The New Gold Standard For Compressors
Bold Comp
WREN AND CUFF
MADE IN THE USA
Cream City Music
GUITARS • BASS • AMPS • EFFECTS
BROOKFIELD, WISCONSIN
full line available at:
creamcitymusic.com
800.800.0087 12505 W Bluemound Rd
wrenandcuff.com

LOW END PERFECTION
ISP
CLEAN PREAMP
DISTORT
COMPRESSOR
EXCITER
DISTORT
BETA BASS
Professional Bass performance and flexibility in a stompbox. Features a bass, treble plus two semi parametric mid band EQ circuits, studio compression, Bass Exciter, Bass Distortion and an on board Decimator II G-String noise reduction system. Drive your stage rig or go direct with a balanced direct output for direct recording or to feed front of house. Visit ISP online to learn more!
Made in USA
ISP Technologies
www.isptechnologies.com



THE METAL MAJESTIC

Veteran melodic death-metal outfit Soilwork resurfaces with a revised lineup and one of their strongest albums yet.

WRITTEN BY JOE CHARUPAKORN | PHOTOS BY JOSEFIN WAHLSTEDT

FACTOID: *For their 10th studio album,* The Ride Majestic, *Soilwork teamed up with Testament frontman Chuck Billy's Breaking Bands LLC management company.*

Soilwork guitarists David Andersson (left) and Sylvain Coudret share a 6-string moment while performing in their native Sweden on the Metal Fest Tour in May 2015.

Just before the release of Soilwork's latest album, *The Ride Majestic*, the group announced that bassist Markus Wibom would be replacing Ola Fink, who had been with the band almost from the start of their 20-year career. "I'm not quite sure what happened," says Wibom. "Björn (Strid, the lead singer) just said, 'Things are pretty good, but we're having some difficulties. We want you in the band.'"

While many bands would be shaken to the core by such a change, Wibom had previously toured with Soilwork as a guitar tech and lighting designer, so the transition was fairly seamless. Besides, Soilwork has weathered similar storms in recent years. Guitarists David Andersson (an MD who moonlights as a gastroenterologist) replaced founding member Peter Wichers in 2012, and Sylvain Coudret replaced Ola Frenning in 2008.

Still, the making of *The Ride Majestic* was impacted by tragedies within the Soilwork camp. During the writing and recording process, death and severe illness befell several members of the musicians' families. The band channeled their emotions into the music, and not surprisingly, a touch of melancholy is evident throughout the album. "Whirl of Pain" is driven by a wistful melodic figure, while "Death in General" employs a dissonant motif and haunting open-string clusters.

Premier Guitar spoke with Andersson, Wibom, and Coudret about melody in the metal genre, the writing of *The Ride Majestic*, and the band's current gear.

SCAN FOR VIDEO DEMO

TIMO SOMERS (DELAIN) DEMONSTRATE ALL THREE PEDALS IN THIS VIDEO. FOR MORE SAMPLES AND INFO, VISIT EBSSWEDEN.COM

- *Optimized for use with guitar.*
- *All models have excellent full range frequency response with no roll-offs.*
- *Studio sound quality with a character that reveals the tone of the instrument.*
- *Handling 9 to 12V DC power with protection against accidental over voltage.*
- *Signal relays switching technique for extremely low mechanical noise and long life span.*
- *True bypass.*

EBS STUDIO QUALITY EFFECTS

FINALLY FOR GUITAR! ...TOO

EBS®

Distributed in USA by:
Musical Distributors Group (MDG) | Phone 866-632-8346 | www.musicaldistributors.com

Don't Play Without It!

WWW.EBSSWEDEN.COM

From the lyrical passages that open the album to the catchy chorus of the title track, it seems like you prioritize melody. Is melody a lost art among newer metal bands?

Sylvain Coudret: Yeah, a lot of bands are really fantastic musicians, but sometimes I miss the melodies. It's more difficult to write good melodies than just some fast stuff. Or to write good parts *behind* the melodies.

Markus Wibom: It depends on the music. Some people are doing just fine without it. Every band has its own thing. It's for every band to decide whether to have melodies or not. Maybe it fits their style, maybe it doesn't. There are bands that almost never use vocal melodies, but they still get it together.

David Andersson: To be honest, I don't listen to much new metal. We're a little older now, and we all grew up listening to lots of melodic music as well. We all love metal, but all of us are also big fans of classic rock, progressive music, pop music, and whatever. Doing melodies comes quite naturally to us, I guess. We hear some younger bands and—not to be rude to them—it sounds like the melodies are sometimes an afterthought. I grew up on classics like Deep Purple, Black Sabbath, and Ozzy Osbourne, and then I gradually learned the early thrash bands. One of my favorites growing up was Testament. Then the Swedish melodic thing came with bands like At the Gates and Dissection. When I listen to metal now, it's newer stuff like Behemoth.

Markus and Slyvain, what were your musical influences growing up?

Wibom: My influences come from old punk bands. That's what I've always listened to, and I still do. I've always been a fan of Matt Freeman from Rancid because he does fairly technical bass playing on simple songs. So I grew up on punk rock. I started touring with Soilwork in 2004, and I started listening more to metal. Soilwork is a band I'd always been into. Every time there was a new record, I'd listen to it intensely.

Coudret: When I started playing guitar I was into Beatles songs. When I was a

DAVID ANDERSSON'S GEAR

GUITAR
ESP M-II Horizon

AMP
Blackstar HT Metal 100

EFFECT
TC Electronic tuner

STRINGS, PICKS, & ACCESSORIES
Dunlop strings (.011–.056 for B tuning)
Dunlop strings (.010–.056 for "dropped-B"—tuned down to C♯, but with the 6th string lowered to B)
Dunlop grey nylon .88 mm picks
Schaller strap locks

MARKUS WIBOM'S GEAR

BASSES
Fender Modern Player Jazz Bass
Fender Jazz Aerodyne

AMPS
Fender Rumble 500 Head
Fender 1x15 cab and 4x10 cabinets

EFFECTS
MXR Bass Compressor
MXR Bass Overdrive
Line 6 Relay G50 wireless

STRINGS, PICKS, & ACCESSORIES
Dunlop strings (.065–.125)
Dunlop Tortex .88 mm picks
Dunlop Double D straps with Dunlop strap locks
Homemade cables

> **"People say things like, 'This sounds a bit jazzy, or like jazz-rock.' But we don't think about it. We just play the way we want to play."**
>
> —Sylvain Coudret

SYLVAIN COUDRET'S GEAR

GUITARS
ESP Horizon with EMG 57 and 66 pickups
ESP Horizon Custom with Wilkinson Bridge and DiMarizio pickups (D Activator bridge/ The Chopper neck)
Mayones Regius 6 Custom with DiMarizio D Activator

AMP
Blackstar HT Metal 100

EFFECTS
Maxon OD808 Overdrive
MXR Carbon Copy
MXR Noise Gate
Dunlop Dimebag Signature Cry Baby Wah
MXR EVH90 Phase 90
TC Electronic tuner
Line 6 Relay G50 wireless

STRINGS, PICKS, & ACCESSORIES
Dunlop strings (.012–.060 for B tuning)
Dunlop strings (.011–.060 for "dropped-B"—tuned down to C♯, but with the 6th string lowered to B)
Dunlop .96 mm picks (with hand-sharpened points)
Minotaur Roadie strap

kid I only played acoustic guitar, so I got into Paco de Lucía and John McLaughlin. When I turned 18 I got my first electric guitar, but I was already into AC/DC, Van Halen, Iron Maiden, Metallica, Joe Satriani, and Steve Vai.

How would you characterize the differences between your soloing style and David's?
Coudret: We're pretty close, and it's hard to describe the differences. We grew up on the same music, so we're in the same area when we play together. Differences? Maybe I'm more into the Steve Vai types, and David's more into the classic rock types. I know David's a big fan of Scott Henderson. I used to listen to him a lot too. We love pretty much the same jazz-rock players.

Do these influences creep into Soilwork's music?
Coudret: People say things like, "This sounds a bit jazzy, or like jazz-rock." But we don't think about it. We just play the way we want to play. Maybe because we used to play that stuff a long time ago, that's the way we hear it.
Andersson: I actually sneak in a few fusion influences here and there. Perhaps they're not audible [*laughs*].

The solo on "All Along Echoing Paths" has some ear-perking note choices you might not expect in a metal context.
Andersson: Yeah. I guess you hear it pop up in some places if you know what to listen for. I'm a big fan of melodic minor, and I base my riffs on it. That's also a part of the Scandinavian melancholic thing. A lot of Swedish folk music is based on the melodic minor, and it's also a big thing in jazz and fusion music.

That's a refreshing alternative to Yngwie's harmonic minor vocabulary, which a ton of metal guys copped.
Andersson: Yeah. Obviously no one is doing Yngwie better than Yngwie.

Tell us about writing *The Ride Majestic*.
Andersson: Last fall we started discussing where we wanted to go with the music on this one. Since we're spread out all over the

Markus Wibom likes the powerful humbucking sound of his Fender Modern Player Jazz bass, but he recently started playing a Fender Jazz Aerodyne live because he wanted something lighter.

world, we mostly wrote by ourselves, and then we swapped files back and forth. We got together a couple of weeks before the recording and jammed on some of the things and went through arrangements.

Did you flesh out the arrangements at home after getting the other band members' parts, or did you wait till the actual sessions?

Coudret: Most of the time when I'm writing the songs, I send the file first to Dirk (Verbeuren, drummer) so we can find some drumming feels and stuff like that. At that point, maybe we change some parts, and then the songs stay pretty much the same until the recording, though sometimes we change one part of a song or add more melodies. If the two-guitar parts are part of the rhythm section, they're part of the first writing. But sometimes it's just rhythm, and we add the melody stuff later.

Andersson: For this album and the last one, the demos haven't been that developed. We wanted to give everyone the freedom to work out their own stuff and add to it. I try to keep demos as simple as possible to be able to have that freedom in the studio, whereas when Björn writes stuff on guitar, he tends to add lots of layers even at the demo stage. He thinks more of melodies, both vocal and guitar.

It sounds like you approach things in terms of melodic counterpoint between instruments and vocals.

Andersson: With Soilwork, even before I was in the band, we've always done music first, and then Björn comes up with the vocals. Sometimes we might add stuff later, but usually the music is done before he adds his vocals. We try to keep the music interesting. Even if we're playing melodically, we try to keep the backgrounds interesting and try to have counterpoint melodies. Björn has learned to find melodies on top of that.

The rhythm figures for songs like "Whirl of Pain" and "Father and Son

YOUTUBE IT

Drama is a key to Soilwork's sound. Check out this clip from the July 2015 Nord Open Air festival to hear how the band builds from quiet mystery to full-on bombast.

YouTube search term: Soilwork Nord Open Air Essen

Watching the World Go Down" have strong and independent melodic and rhythmic components. It must be tricky at times for him to fit in his vocals.
Coudret: That's completely right.
Andersson: Yeah, and that's probably what keeps it interesting. I think the vocal melodies on this album are interesting compared to a lot of other metal bands that use clean vocals. I guess that's an art form that Björn has developed over the years. Björn and I did most of the writing for this album, and we had an idea of developing the Scandinavian melancholic moods. I think we've accomplished that. It's hard to explain but it's sort of like having that old-school melodic death vibe, but hopefully with something fresh.

Markus, will you be adding your own interpretation to Ola's bass parts?
Wibom: These songs are so established, and I don't try to change things that are already carved in stone. I've been doing some minor changes that no one will be able to hear except for me. Some extra slides and stuff like that.

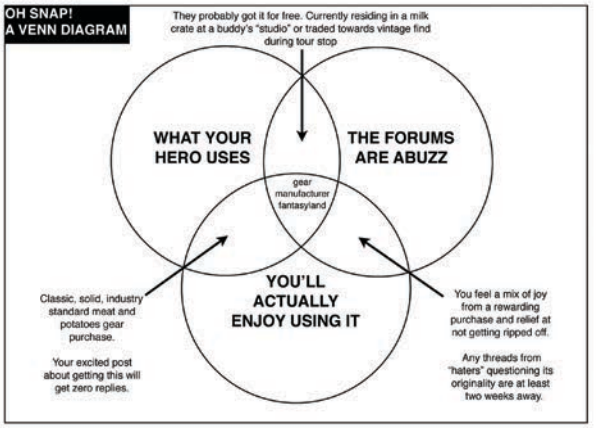
What are your main axes?
Andersson: We just got an endorsement with ESP Guitars. I use the ESP M-II Horizon series. On the album I mostly used my old Peavey guitar, the HP CT Special. I had an endorsement with them in 2006, when I did my first tour with Soilwork. It's got a flame top and is really nice. It's been my main guitar in the studio, but now I'm taking the ESP guitars on the road, and they feel and sound very good.
Coudret: I have an Iron Oxidized ESP Horizon. It has EMG pickups—the 57 and 66. I really dig them. The 57 is like a PAF Pro. It sounds like a passive pickup. I was more of a passive guy before, but I wanted to get back to EMGs. I'm going to put EMGs everywhere now.
Wibom: I use the Fender Modern Player jazz bass. It's a really cheap one, but I've really been into it. I like the powerful humbucking sound—that's the main reason I got it in the first place. And I just got two Fender Jazz Aerodynes because the modern players are pretty heavy. I need something lighter when I'm playing one-and-a-half hour shows every night.

How does *The Ride Majestic* reflect the evolution of Soilwork's sound?
Andersson: I like the first two Soilwork albums, before they added clean vocals, but I guess we're all a bit too old now to have that youthful aggression. When I listen to those first albums, I can hear that they were created in a rehearsal space by 18- and 20-year-olds. That primitive youthfulness is hard to recreate when you're doing your 10th album.
Coudret: Twenty years ago the band was more aggressive. Now there are a lot of clean vocals, more than before. And on the last three albums the band has become more progressive.

Even with the progressive elements, you keep everything sounding organic and accessible.
Coudret: It's hard to find the right balance, but we don't think about that as we're writing. I just write what I want to hear. The same goes for David and Björn. We don't calculate it. We just play what we love to play.

They're Just as Dumb as We Are!

BY PHILIPPE HERNDON



When I was thinner of form and thicker of hair, my bandmates and I paid our dues in a minor-league circuit of fraternity basements, crab shacks, and university ballrooms. Years later I would impress a director of graduate school admissions with a romantic-sounding line about the privilege of seeing our country from the window of an Econoline passenger van. What I neglected to mention to her was how my feet were stuck to the floor from the hardened leakage of fast food sauce packets, several of us always nursed mild-grade sinus infections, and all of us earned a fraction of what we would have as baristas or waiters.

Living the Dream

I vividly remember arriving one afternoon shortly before a set to find an outdoor collegiate courtyard in total disarray. No stage had been set up. The sound engineer, smoking a cigarette and awaiting anything resembling instruction or guidance, had simply dumped a pile of speakers and microphones on the grassy quadrangle. A handful of overweight young men in backwards baseball caps wandered about aimlessly, paused to looked around, drank from cans of cheap beer, and repeated their cycle like test-pattern civilians from some poorly programmed version of *Grand Theft Auto: State U*.

Because I'd drawn the shortest straw as the least hungover, it was my turn to perform reconnaissance. I emerged from the van to find the drummer from another band on the bill sitting on what was once an elegant stone wall bordering the "venue." With his practice pad out, he gave a nod of acknowledgement without breaking stride on his paradiddles. A smile formed as I approached, his shoulders shaking as he giggled at my obvious dismay. "This place, man," I said. "What on earth is going on here?"

"I know, right?" he replied. And as he paused his warm-up to motion towards the trustafarians making drunken lazy eights in our midst, he delivered the most devastatingly memorable line I ever heard during my musical career of long duration and limited treasure.

"I mean, just look at these people. *They're just as dumb as we are.*"

Compression Concession

I often think of that line when I recall my tone and gear pursuits over the years, and how the opinions of rock stars, other players, and even magazine reviews have lead me astray. I remember my ridiculous Jeff Beck kick as a teenager. I stopped using a pick cold turkey, which introduced me to a measure of expressive capability at the expense of everything I'd spent years developing beforehand. Other details from my obsession yielded introductions that I'm still grateful for: single-coils pickups, floating Strat bridges, and the classic Pro Co RAT. In one interview, Beck spoke dismissively about using compression, and in my fealty, I swore it off as well. No setup I'd construct for years would have a compressor. In fact, I never even tried one when I worked in guitar shops and was expected to recommend them. Years later, after I'd reverted to using a pick, I'd struggle through chicken-pickin' lines and fast, country-style runs with pull-offs and open strings. While I knew fellow players and friends who sounded like modern-day Roy Clarkes through clean amps, the best description for my sonic outcome would be "Rocky Balboa trying to chop meat with his fists." It vexed me, considering how smooth my overdriven lines would sound after a similar amount of practice. Finally, I did what someone smarter than me would do and asked a particularly good-sounding friend for advice. His expression when he found out I wouldn't use a compressor was similar to mine when I discovered that Jessica Simpson didn't like to brush her teeth.

If Ty Tabor Jumped Off a Bridge ...

A similar thing happened regarding the use of reverb. I'd read how Ty Tabor of King's X, another hero of mine, didn't like reverb. He thought it took away from the immediacy of his playing, so for years, like my hero, I wouldn't use reverb. Imagine the awkward sounds that occurred when I was asked to play the opening lines of Chris Isaak's "Wicked Game" for an audition. With a single-coil guitar—set for a floating trem, but without reverb—I might as well have been playing "Tiny Bubbles."

The point of sharing my personal tone disasters (beyond your entertainment while you waste time reading this at your laptop, or on the toilet, or both) is that you should only accept advice up to a point—even my advice. We all can, have been, and will be wrong at times. Those smooth-sounding pickups that your hero uses may sound like mush through your favorite amp. That overdrive pedal everyone told you to buy won't do justice to your picking dynamics. The supposed be-all, end-all of delay pedals will have the producer yelling F-bombs at you while you struggle to edit presets between takes. Don't be married to anything you hear from anyone else, even your heroes, unless it works best for your music and your enjoyment. After all, they're just as dumb as we are.

PHILIPPE HERNDON *is the founder and chief product designer at Caroline Guitar Company. One day he might actually get around to making a guitar. He likes pretty much any British TV series that NetFlix recommends for him.*

TUBE SCREAMER MINI

Same Legendary Pedal...Same Legendary Tone.

Ibanez knows your pedalboard real estate is valuable. Here's a Tube Screamer made to help you manage that hallowed ground. Manufactured in Japan and measuring in at 1.5" wide by 3.875" long, the new TSMINI has all the features that have made the TS808 a legend, including Overdrive, Tone and Level controls, analog circuitry, and the legendary JRC4558 IC chip.

Ibanez®.com

The Bill Lawrence 5-way Telecaster Circuit

BY DIRK WACKER

This month we'll look at a cool Telecaster wiring that also works with any two-pickup guitar with a master tone/master volume configuration. Designed by the great pickup maker Bill Lawrence, this wiring deals with the so-called half out-of-phase option (more on this in a moment). **Fig. 1** reproduces the relevant page from Bill Lawrence's now-famous scrapbook, where he archived all his wirings as handwritten diagrams. (Thanks to my luthier colleague Ivan "Joe Owl" Franasović for introducing me to this wiring.)

Bill Lawrence (real name: Willi Lorenz Stich) was born in Germany in 1931 and became one of the country's best guitarists of the post-WWII era. He was a busy session musician and jazz player who performed under the name Billy Lorento. Germany's Framus guitar company even built a signature model for him (the 5/120) that's still available today. Later on, he started a second career in the guitar industry under the name Bill Lawrence. He conceived many groundbreaking pickup designs and other musical instrument innovations. Sadly, he died in November 2013 at age 82, but his music and genius live on.

Basically, this wiring follows the standard Telecaster schematic, but substitutes a 5-way Strat-style pickup selector for the Tele's traditional 3-way switch, unlocking two new tones.

Here's the switching matrix:

- Position 1: neck pickup alone
- Position 2: neck + bridge in parallel
- Position 3: bridge pickup alone
- Position 4: neck + bridge in parallel "half out of phase"
- Position 5: neck pickup alone with 10 percent less low end than position 1

We all know switch positions 1, 2 and 3 from standard Telecaster wiring (though they appear here in a different order). Meanwhile, position 5 cuts some lows for a slightly brighter tone than position 1, which makes it cool for more prominent rhythm tones and jazz lines. I was sceptical about the value of position 5, but as I experimented, I found I liked it more and more, so I recommend you give it a try as well.

But for me, the highlight of this wiring is position 4, with both pickups together and "half out of phase" with each other, a concept later adopted by Fender for their Jerry Donahue signature Telecaster and by Peavey for their Omniac JD model. So what the heck is "half out of phase?" I don't want to bore you with electrical theory, so here's a short, simplified explanation.

Phase differences are measured in degrees. Totally in-phase sounds have

Fig. 1

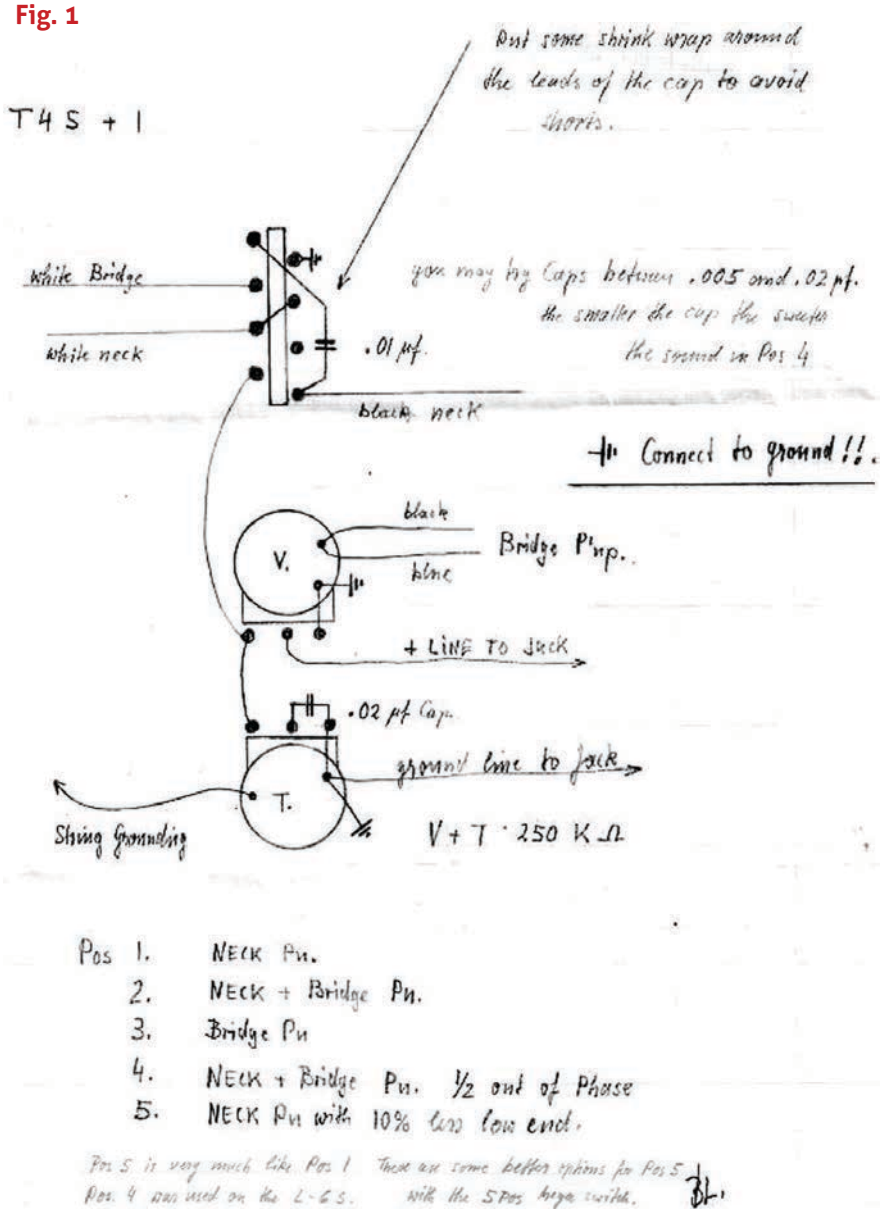
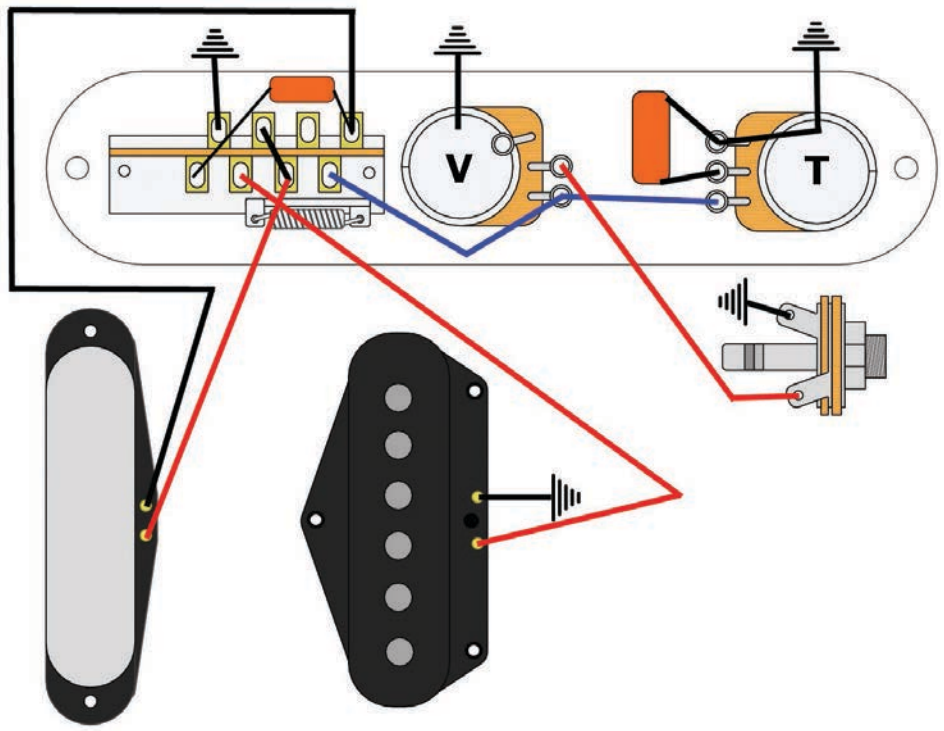


Image courtesy of Bill Lawrence

Fig.2



either 0 or 360 degrees of difference, meaning none. Totally out-of-phase sounds have a 180-degree difference. So half out of phase is either 90 or 270 degrees of difference. You can only achieve a fully out-of-phase effect when using two pickups together with one wired out of phase. (When both pickups are wired out of phase, they sound the same as both pickups in phase, because there are still 0 degrees of phase difference between them.)

But when a signal passes through a capacitor, the voltage leads the current by 90 degrees. In this wiring, one pickup's signal gets routed through a capacitor, shifting the phase by 90 degrees—exactly half of 180 degrees, and therefore half out of phase. Bill Lawrence chose to send the neck pickup's signal through an additional capacitor, connected directly to the 5-way switch. (If you want to dig deeper into the out-of-phase thing, check out my October 2008 column, "Phasing Out: How to Get Out-of-Phase Sounds from a Stratocaster.")

So what are the tonal differences compared to a standard out-of-phase sound? The standard version cuts more lows and mids, while position 4 here has a fuller-sounding tone. Half out-of-phase wiring is perfect for mimicking a Stratocaster's "in-between" positions (2 and 4) using a Telecaster. (Even though on the Strat, the two pickups are actually in phase.) This, for me, is the real benefit of this wiring. I encourage you to give it a try and experiment with the pickup height adjustment screws. You really can get something close to the Strat "in-between" sound we all love. That's definitely icing on any Telecaster cake!

You can replace the stock Tele pickup selector with any standard 5-way switch for Strats. Both pots are 250k audio-taper types. The wiring works best with two single-coil pickups, like standard Tele ones. The capacitor connected to the tone pot is your typical tone cap. (Bill Lawrence chose a standard 0.022 µF value, but feel free to experiment with other values to find your personal favorite.) The cap connected to the 5-way switch is the phase-shifting cap mentioned above. Bill selected a 0.01 µF cap. In his words: "You may try caps between 0.005 µF (5000 pF) and 0.02 µF. The smaller the cap, the sweeter the sound."

I think 0.01 µF is a great choice, but this really depends on your particular pickups. I recommend experimentation, fine-tuning to get as close as possible to a Strat's "in-between" tones. The tone pot wiring differs slightly from a standard Telecaster's, but it works as intended, so I left it the way Bill designed it.

While Bill's handwritten diagram is iconic and über-cool as a historical document, I'm including a clearer drawing (**Fig. 2**) that may be easier to follow.

Next time we'll continue with another guitar mod, but if you'd like to see more ideas from Bill's scrapbook, let me know, and I'll cover them in future columns. Until then, keep on modding!

DIRK WACKER *lives in Germany and has been a guitar addict since age 5. He's also a hardcore DIY-er for guitars, amps, and stompboxes and runs a website on the subject (singlecoil.com). When not working at his guitar workbench, he plays country, rockabilly, surf, and flamenco. Contact him at info@singlecoil.com..*

Image courtesy of singlecoil.com

Demystifying an Ibanez GX20's Volume Knobs

BY JEFF BOBER

Boasting three volume controls, the GX20 offers a potent—and possibly confusing—range of sonic options.

Q: **Dear Amp Man,**

I've got a strange question about an Ibanez GX20 combo. This has puzzled me since I bought the amp in 1984, so I hope you can help me finally resolve it. In addition to bass, middle, treble, and reverb knobs, this solid-state amp has two inputs—overdrive and normal—and three volume knobs: overdrive, normal, and master. It's the volume knobs that bother me.

Looking at these three knobs, you'd think the overdrive volume would control the gain of the overdrive input, and the normal volume would likewise control the gain of the normal input. And that's correct if you're plugged into the normal input. In that scenario, the overdrive volume has no function.

But if you plug into the overdrive input, the volume is controlled by a combination of the overdrive and normal volume knobs, as well as the master. The user manual shows a simple scheme to combine these volumes, but I just don't understand how it works. Is it a pre-gain/post-gain thing?

Ad van Oyen
The Netherlands

A: **Hi Ad,**

I typically don't answer questions about solid-state amps, but I figured that because this is *PG*'s annual pedal issue and Ibanez made your amp, there might be a common thread here. While Ibanez makes many other products, they certainly left an indelible mark on the vintage pedal market with a couple of wildly successful stomps—the TS808 and the TS9.

Ibanez still makes amps, including a tube amp with a built-in Tube Screamer circuit, but your particular model comes from what I consider to be the second generation of solid-state amps. By the mid 1980s, solid-state circuits had improved from the 1960s, and more and more amps were combining the old transistor technology with the newer IC (Integrated Circuit) technology. Yours is one of these examples, though it only uses a 4558 IC (the same number as in a TS) as a reverb send and return. The rest of your amp consists of old-school discrete component design. One more cool and crazy fact: This amp, like many Ibanez effects, was also available in an identical model branded as a Maxon device. But so much for products with multiple identities. Let's see if I can help you understand the different inputs and their associated controls.

You describe how both the overdrive and normal volume controls affect the sound when the guitar is plugged into the overdrive input, but if the guitar is plugged into the normal input, only the normal control functions. This is correct and intentional in design.

Look at **Fig. 1** (see opposite page), where I've traced out the signal path from the input jack in red. As you can see, it goes directly from the normal input to the input of transistor Q102. The output of this stage then goes to the tone stack (treble, middle, and bass knobs), and then to the normal volume control. The signal has completely bypassed the first gain stage based around Q101. In this mode, the input of the first gain stage (Q101) is also grounded—as shown by the green trace—to avert any added noise.

But as you'll see in **Fig. 2** (see opposite page), things change once a guitar is plugged into the overdrive input. The red trace coming from this jack feeds the first gain stage (Q101). The output of this stage is connected to the overdrive control. The next red trace shows the output of this control going through one set of switching contacts contained in the overdrive jack, which are closed when a 1/4" plug is inserted into this jack. The signal then goes to the second gain stage (Q102) and, as before, on to the tone stack and then the normal volume control.

As you can hopefully see by now, this is why both the overdrive *and* the normal volume controls function when you plug into the overdrive jack. This jack gives you access to an additional gain stage, as well as the ability to control its level by using the overdrive control. The higher you set the overdrive control, the more the first gain stage will overdrive the second.

This is very similar to the first series of Marshall MV master volume amps—the 2203 and 2204. Plugging into the high gain input provides access to the first gain stage, which is disconnected when you plug into the low gain input. The only difference is that the level of the first Marshall gain stage is fixed, whereas on the GX20 you have the ability to control this level via the overdrive control.

Here's one way to think of the GX20's overdrive input: It's as if you're plugged into the normal input, but have a gain-boost stompbox between your guitar and amp. I hope this alleviates any control confusion.

WARNING:
All tube amplifiers contain lethal voltages. The most dangerous voltages are stored in electrolytic capacitors, even after the amp has been unplugged from the wall. Before you touch anything inside the amp chassis, it's imperative that these capacitors are discharged. If you are unsure of this procedure, consult your local amp tech.

JEFF BOBER *is one of the godfathers of the low-wattage amp revolution. He co-founded and was originally the principal designer for Budda Amplification, though he launched EAST Amplification (eastamplification.com) in 2010. You can catch his podcasts at ampsandaxescast.com or email him at pgampman@gmail.com.*

Fig. 1

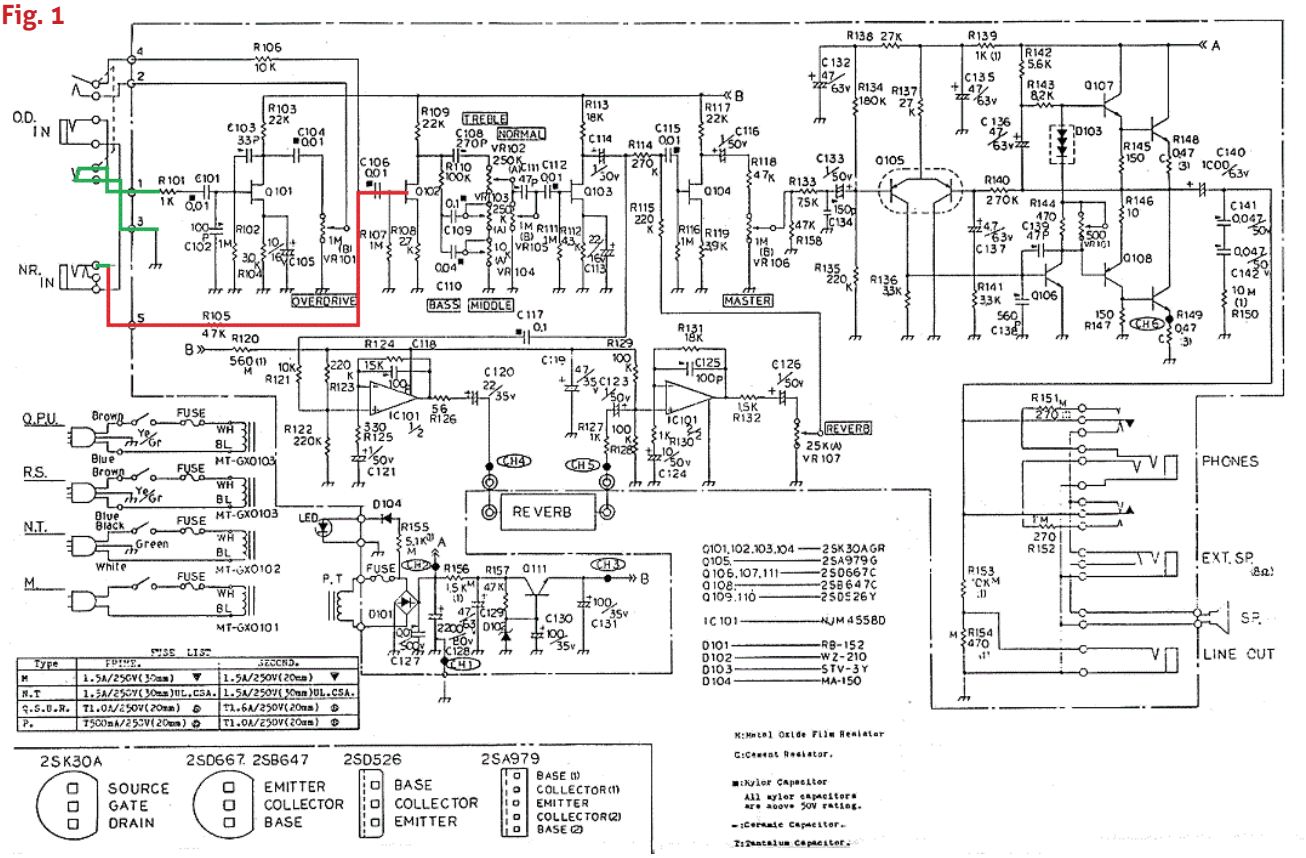
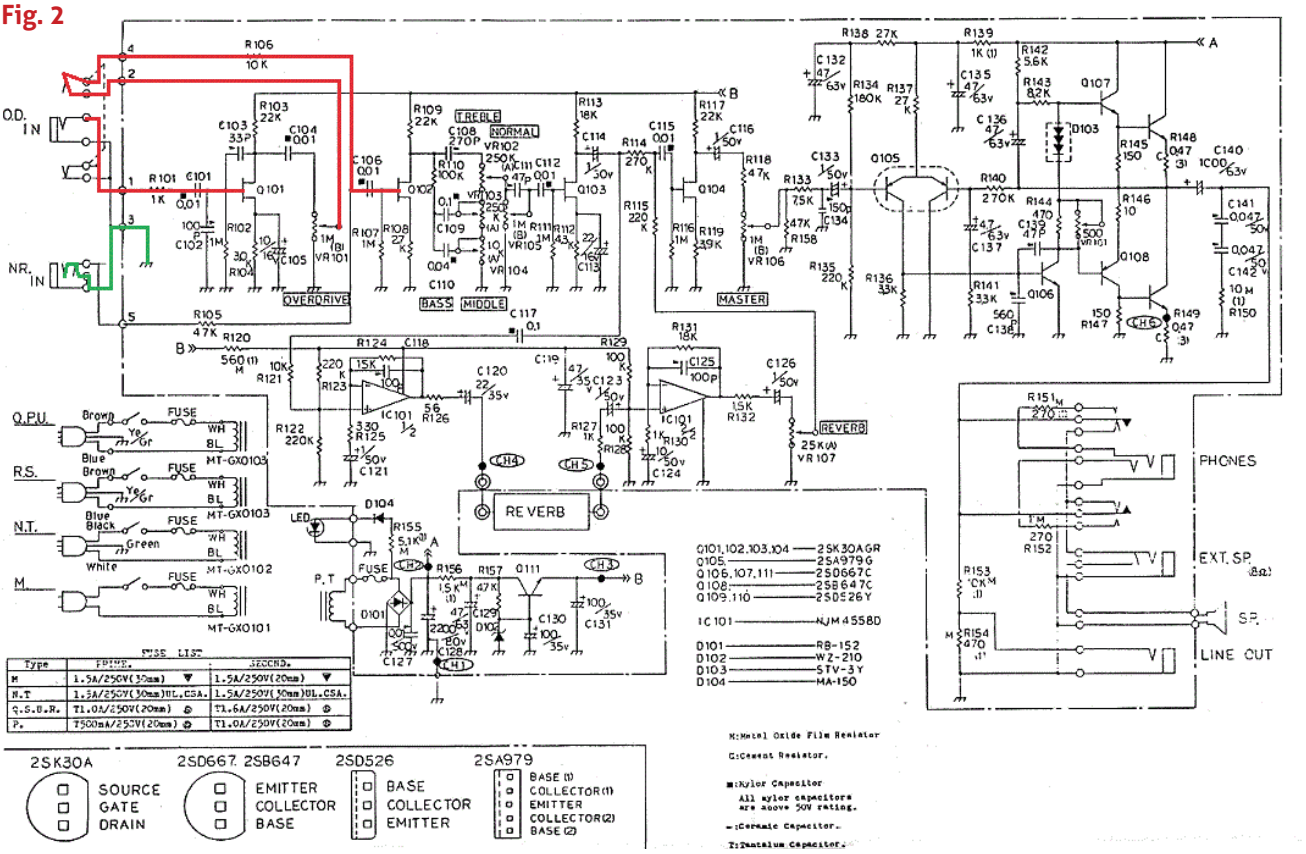
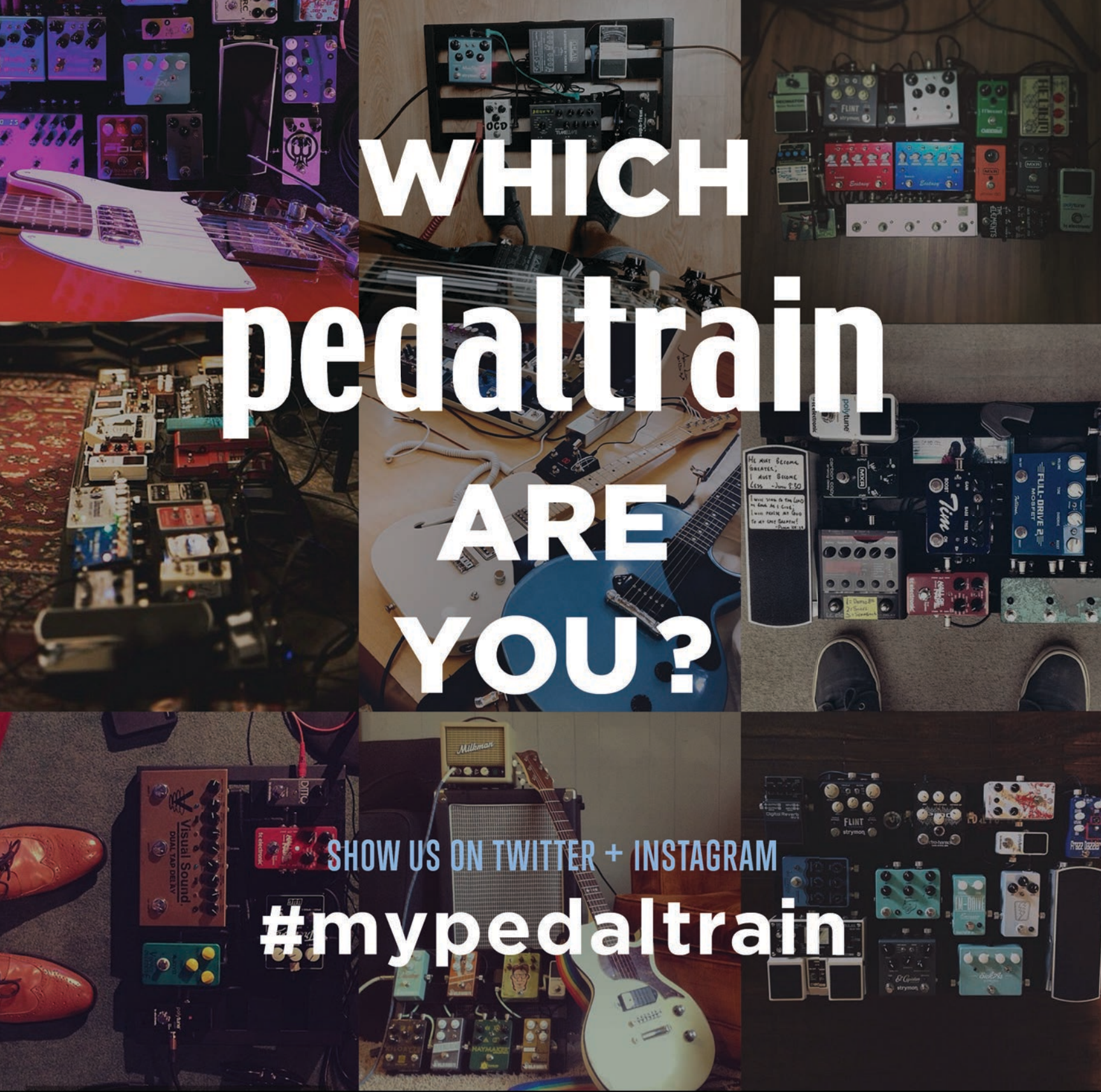

O.D. IN
NR. IN
R106 10K
R103 22K
C103 33P
C104 .001
R101 1K
C101 .01
Q101
R102 1M
C102 100P
R104 30K
C105 10
VR101 1M (B)
OVERDRIVE
R107 1M
R108 27K
C106 .001
R109 22K
TREBLE
C108 270P
NORMAL
VR102 250K (A)
R110 100K
C111 47P
C112 .001
Q102
VR103 250K (A)
C109 .1
R111 1M
R112 1M
VR105 1M (B)
C110 .004
VR104 10K (A)
C113 22
Q103
R113 18K
C114 .001
R114 270K
R115 220K
R116 1M
R119 39K
C115 .001
R117 22K
C116 50v
R118 47K
Q104
VR106 1M (B)
MASTER
BASS
MIDDLE
C117 .1
R105 47K
R120 560 (1) M
R121 10K
R124 220K
C118 15K
R123 100
IC101 1/2
R122 220K
R125 330
C121 50v
R126 56
C120 22 35v
C119 47 35v
R129 100K
C123 50v
R127 1K
R128 100K
IC101 2/2
R130 1K
C124 50v
C125 100P
R131 18K
R132 1.5K
C126 50v
REVERB
25K(A) VR107
CH4
CH5
REVERB
R138 27K
R139 1K (1)
C132 47 63v
R134 180K
R137 27K
C135 47 63v
R142 5.6K
R143 82K
Q107
C136 47 63v
D103
R145 150
R148 .047 (3)
C140 1000 63v
R140 270K
R144 470
C139 47P
C137 47 63v
R146 10
VR101 500
Q108
R141 33K
Q106
C138 560P
R147 150
R149 .047 (3)
CH6
C141 .0047 50v
C142 .047 50v
10M (1) R150
Q105
R133 75K
C133 50v
C134 150P
R158 47K
R135 220K
R136 33K
«A
«B
Q.P.U.
R.S.
N.T.
M
Brown
Blue
Yellow
Green
White
Black
FUSE
WH
BL
MT-GX0103
MT-GX0102
MT-GX0101
LED
D104
R155 5.1K (3) M
P.T
D101
R156 1.5K (1)
R157 47K
Q111
CH1
CH2
CH3
C127 .001 50v
C128 220P 50v
C129 47 35v
D102
C130 100 35v
C131 100 35v
R151 M 270
R152 270
R153 CKM .1
R154 470 .1
PHONES
EXT. SP. (8Ω)
S.P.
LINE OUT
Q101,102,103,104 — 2SK30AGR
Q105 — 2SA979G
Q106,107,111 — 2SD667C
Q108 — 2SB647C
Q109,110 — 2SD526Y
IC101 — NJM4558D
D101 — RB-152
D102 — WZ-210
D103 — STV-3Y
D104 — MA-150
FUSE LIST
Type | PRIMARY | SECOND.
M | 1.5A/250V(30mm) | 1.5A/250V(20mm)
N.T | 1.5A/250V(30mm)UL.CSA. | 1.5A/250V(30mm)UL.CSA.
Q.S.U.R. | T1.0A/250V(20mm) | T1.6A/250V(20mm)
P. | T500mA/250V(20mm) | T1.0A/250V(20mm)
2SK30A
SOURCE
GATE
DRAIN
2SD667 2SB647
EMITTER
COLLECTOR
BASE
2SD526
BASE
COLLECTOR
EMITTER
2SA979
BASE (1)
COLLECTOR(1)
EMITTER
COLLECTOR(2)
BASE (2)
M:Metal Oxide Film Resistor
C:Cement Resistor.
■:Mylar Capacitor
All mylar capacitors are above 50V rating.
●:Ceramic Capacitor.
T:Tantalum Capacitor.

Fig. 2


O.D. IN
NR. IN
R106 10K
R103 22K
C103 33P
C104 .001
R101 1K
C101 .01
Q101
R102 1M
C102 100P
R104 30K
C105 10
VR101 1M (B)
OVERDRIVE
R107 1M
R108 27K
C106 .001
R109 22K
TREBLE
C108 270P
NORMAL
VR102 250K (A)
R110 100K
C111 47P
C112 .001
Q102
VR103 250K (A)
C109 .1
R111 1M
R112 1M
VR105 1M (B)
C110 .004
VR104 10K (A)
C113 22
Q103
R113 18K
C114 .001
R114 270K
R115 220K
R116 1M
R119 39K
C115 .001
R117 22K
C116 50v
R118 47K
Q104
VR106 1M (B)
MASTER
BASS
MIDDLE
C117 .1
R105 47K
R120 560 (1) M
R121 10K
R124 220K
C118 15K
R123 100
IC101 1/2
R122 220K
R125 330
C121 50v
R126 56
C120 22 35v
C119 47 35v
R129 100K
C123 50v
R127 1K
R128 100K
IC101 2/2
R130 1K
C124 50v
C125 100P
R131 18K
R132 1.5K
C126 50v
REVERB
25K(A) VR107
CH4
CH5
REVERB
R138 27K
R139 1K (1)
C132 47 63v
R134 180K
R137 27K
C135 47 63v
R142 5.6K
R143 82K
Q107
C136 47 63v
D103
R145 150
R148 .047 (3)
C140 1000 63v
R140 270K
R144 470
C139 47P
C137 47 63v
R146 10
VR101 500
Q108
R141 33K
Q106
C138 560P
R147 150
R149 .047 (3)
CH6
C141 .0047 50v
C142 .047 50v
10M (1) R150
Q105
R133 75K
C133 50v
C134 150P
R158 47K
R135 220K
R136 33K
«A
«B
Q.P.U.
R.S.
N.T.
M
Brown
Blue
Yellow
Green
White
Black
FUSE
WH
BL
MT-GX0103
MT-GX0102
MT-GX0101
LED
D104
R155 5.1K (3) M
P.T
D101
R156 1.5K (1)
R157 47K
Q111
CH1
CH2
CH3
C127 .001 50v
C128 220P 50v
C129 47 35v
D102
C130 100 35v
C131 100 35v
R151 M 270
R152 270
R153 CKM .1
R154 470 .1
PHONES
EXT. SP. (8Ω)
S.P.
LINE OUT
Q101,102,103,104 — 2SK30AGR
Q105 — 2SA979G
Q106,107,111 — 2SD667C
Q108 — 2SB647C
Q109,110 — 2SD526Y
IC101 — NJM4558D
D101 — RB-152
D102 — WZ-210
D103 — STV-3Y
D104 — MA-150
FUSE LIST
Type | PRIMARY | SECOND.
M | 1.5A/250V(30mm) | 1.5A/250V(20mm)
N.T | 1.5A/250V(30mm)UL.CSA. | 1.5A/250V(30mm)UL.CSA.
Q.S.U.R. | T1.0A/250V(20mm) | T1.6A/250V(20mm)
P. | T500mA/250V(20mm) | T1.0A/250V(20mm)
2SK30A
SOURCE
GATE
DRAIN
2SD667 2SB647
EMITTER
COLLECTOR
BASE
2SD526
BASE
COLLECTOR
EMITTER
2SA979
BASE (1)
COLLECTOR(1)
EMITTER
COLLECTOR(2)
BASE (2)
M:Metal Oxide Film Resistor
C:Cement Resistor.
■:Mylar Capacitor
All mylar capacitors are above 50V rating.
●:Ceramic Capacitor.
T:Tantalum Capacitor.

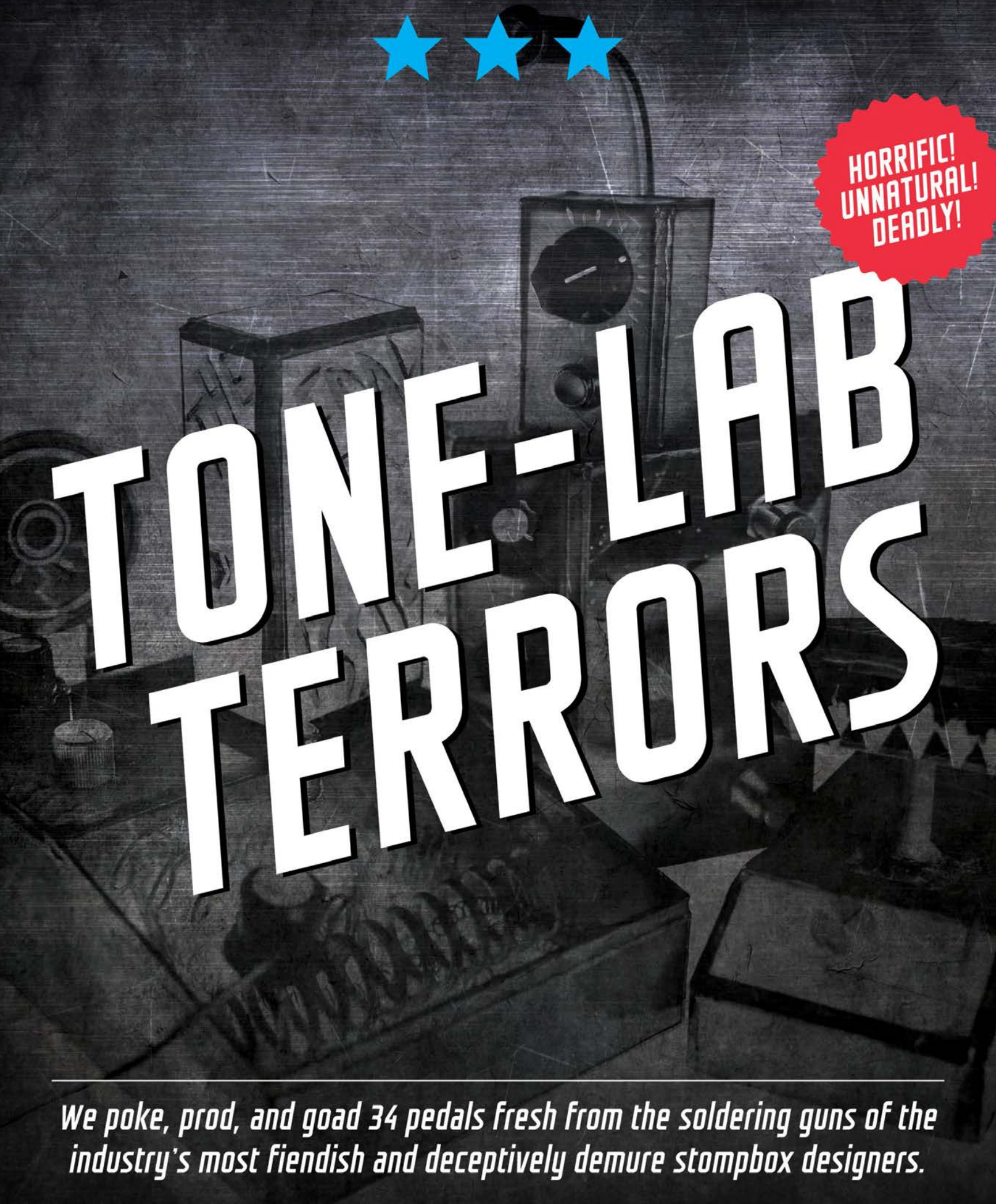


pedaltrain®

@pedaltrain | pedaltrain.com

USER PHOTO CREDITS :
left to right / top to bottom

@caseymoore_ @Spivakovski @filipedelbel @matthewhoopes @je_sj77
@iamgabrielvalenz @mccartney007 @reallybenwalker @joshhunt_



We poke, prod, and goad 34 pedals fresh from the soldering guns of the industry's most fiendish and deceptively demure stompbox designers.

YELLOWCAKE
Furry Burrito

BY DAVID VON BADER

A great fuzz pedal should energize your playing with fire and brimstone. But sometimes the fieriest fuzzes can be a real handful. Yellowcake's Furry Burrito manages to be hot *and* forgiving by mating a nasty fuzz circuit with a relatively civilized overdrive employing a combination of silicon and germanium clipping diodes. It's as smooth a fuzz as you'll hear, without sacrificing the desired nastiness.

Monstruo de Dos Cabezas

The Furry Burrito is essentially an overdrive cascading into a fuzz. The fuzz and overdrive are controlled via the gain and drive knobs, respectively. Together they can produce eyebrow-raising snarl, but they also provide mellower saturation shades. Meanwhile, the filter knob controls a low-pass filter that lets the Furry Burrito move from wooly and bassy to hot and bright.

The LED indicator is an unexpected treat: It doubles as a trim pot controlling the amount of voltage feeding the circuit. Starving the voltage mimics the glitchy sputter of a '60s germanium fuzz running at low gain. Cranked, the control adds highly musical and predictable oscillation.

Blue Light Special Sauce

I tested the Burrito using a Les Paul with a P-90 neck pickup. The pedal did an impressive job of turning a Fender Deluxe Reverb (set to the brink of breakup) into an agent of destruction. I could conjure liquid, Smashing Pumpkins-like lead tones and beautiful controlled feedback. Power chords became massive bricks of sound while retaining strong note-to-note definition, even with drive and gain set to maximum. The Furry Burrito has the singing sustain and creamy saturation of a transistor-driven, Muff-type circuit, but with more focus and without the aggressive midrange scoop.

The Furry Burrito has the singing sustain and creamy saturation of a transistor-driven, Muff-type circuit, but with more focus and without the aggressive midrange scoop.

Some of the richness may be attributable to the asymmetric clipping of the silicon/germanium diode set. You hear less of the metallic sizzle you sometimes encounter in op amp-driven Big Muffs, and the fuzz tends to sound more harmonically complex. Both qualities make the Furry Burrito an agreeable fuzz when switching between amps. A fat switch also contributes to the pedal's play-nice nature. It engages a larger capacitor, adding a touch more bass for open-back cabs and thinner-sounding combos. The Furry Burrito's "tunability" also makes it perfect for bassists, who are likely to love the pedal's tight low-end response in high-gain environments. The Burrito provides all the filth with none of the flub.

The voltage-starving trim knob is heaps of fun. The pot is sensitive, veering quickly from smooth distortion to a sputtering mess. It definitely takes finesse and practice to dial in. When you get it right, though, it adds a nice touch of '60s germanium splatter. This relatively fragmented output lacks some of the ghostly overtones you hear in fuzzes with more sensitive or complex biasing functions (or, say, Neil Young's strangled tweed Deluxe), but it sounds plenty cool when you need to get weird.

The Verdict

The Furry Burrito packs an impressive punch and much versatility into a relatively small footprint. While you can't operate the overdrive and fuzz circuits independently, you still experience the extra gain, color, and dimension that a properly paired fuzz and overdrive can provide. It's a sturdy box that delivers uncommonly smooth and controllable fuzz at a fair price.

RATINGS

PROS Smooth fuzz and overdrive. Cool voltage control. Super versatile.

CONS Trim pot can be a too touchy to dial in on the fly. Can't use fuzz and overdrive independently.

Tones	4.5
Ease of Use	4
Build/Design	4.5
Value	4.5

$165 street
yellowcakepedals.com

CLICK HERE TO HEAR this pedal at premierguitar.com/oct2015

Seymour Duncan

Seymour Duncan pedals capture that awe-inspiring sound you're after. Each pedal is distinctly voiced with intuitive controls and cutting edge features. We're as obsessed with tone as you, which is why we design and assemble each pedal right here in Santa Barbara, California. The same factory that's helped musicians from around the world find their signature sound since 1976. In the end music matters and musicians matter.

DESIGNED & ASSEMBLED SANTA BARBARA CALIFORNIA

seymourduncan.com

© Seymour Duncan 2015

MXR Sub Machine

BY CHARLES SAUFLEY

Watch the video!

Octave fuzz often walks a fine line between ecstatically unbridled and a bit trashy. For every Jimi Hendrix or Pete Townshend solo driven to screaming high-octave heights or tasty "Fool in the Rain" Blue Box flurry, there's some jerk playing a boneheaded beer commercial riff that makes you feel like you need a shower and a week at a silent Zen retreat.

What's fun about MXR's Sub Machine octave fuzz is that it offers a path to both extremes. And thanks to a well-executed, sensitive control set and independent octave-up and sub-octave voices, you can navigate the sometimes nebulous no-man's land between sublime and stupidly scuzzy—and even uncover some pretty classy tones along the way.

Built Like a Brute

The mechanical heart of the Sub Machine is MXR's La Machine fuzz—the company's homage to the unsung but awesome Foxx Tone Machine. All the functionality of the La Machine is here in the form of volume, tone, and fuzz knobs. And the octave switch is vastly improved from the original La Machine simply by making it a footswitch rather than a miniscule button. The fourth knob in the set is for the sub-octave volume, which can be dialed back to zero octave content or up to Jabba the Hutt levels of corpulence. (It can even be used alone when the fuzz volume is off, so you can double as a bass player in a pinch.) The fifth control is a very cool series/parallel switch that runs the sub-octave and fuzz/high-octave signals independently until they are summed at the output. In series mode, the sub-octave signal is fed into the fuzz circuit, which can lend both delicious chaos and control to the proceedings.

Powerfully Purple Acid Rain

Any fears that the Sub Machine dwells too permanently in the aforementioned "trashy" side of the octave fuzz spectrum are easily quelled by exploring its simplest and most subdued voices. For starters the basic fuzz voice is killer—particularly if you dig buzzing mid-'60s to early-'70s fuzz with a silicon edge. One of my favorite things about the Sub Machine's fuzz circuit is how buzzing, full, and sustaining it can sound at low pedal, amp, and guitar volume levels when you crank the fuzz. That said, it's happiest and most at home when it's wide open and roaring. While it's not the most dynamic fuzz and won't be everyone's cup of tea, I love its raunchy, acerbic personality and mod-meets-airbrushed-custom-van mixture of Big Muff brawn and lacerating Fuzzrite and Tone Bender buzz. The octave-up voice is the icing on the cake: It adds hints of hair-singeing Octavia and Superfuzz octave tones, but with what often sounds like a touch more sustain and breadth.

As with most octave-down guitar devices, the Sub Machine's sub-octave effect is one you'll either love or hate. To some, the rotund, synthy, and harmonically compact tone signature is funky beyond measure. Those who savor the most colorful and overtone rich bass content possible will hear it as artificial and skanky. (If you've been following, this is where the trashy part of the equation factors in.) The artificiality of the sub-octave is most prominent when you run it in parallel. In fact, it can get queasily gut rumbling if you're running the pedal through a powerful amp with high-wattage speakers. But there are enough soft contours in the sub-octave tone and range in the sub volume control that you can make it a very seamless part of the fuzz voice at lower sub volumes.

You can more musically enmesh the fuzz and sub by running the two in series. At low sub levels, the sub-octave can become a cool baritone undertow. At higher ones, it adds a nasty glitchiness that Jack White fans will relish. Yet the real takeaway is that there are surprisingly numerous ways to make these two effects work together, and many of the least obvious and most subdued amalgams of the two often produce the coolest results.

The Verdict

Obscene as the Sub Machine can be, it is ultimately a very clever and imaginative bit of fuzz design that's musical in applications way beyond filthy caveman riffage. While MXR has built similar pedals—most notably in the form of the Slash Octave Fuzz—the Sub Machine brings a sassier, classier, and more '60s-tinted fuzz voice to the mix. For anyone willing to dig deep into the tone shaping potential of this potent purple machine, a world of sonic surprises awaits.

RATINGS

PROS Surprisingly versatile and full of tone-shaping possibilities. Good value. Killer basic fuzz voice.

CONS Sub-octave voice can sound woofy and artificial at high levels.

Tones	4.5
Ease of Use	5
Build/Design	5
Value	5

$149 street
jimdunlop.com

CLICK HERE TO WATCH this pedal at premierguitar.com/oct2015

Guitar Center®
ANY GEAR, ANYTIME, ANYWHERE
At Guitar Center, you can wrap your hands around the finest electric guitars in the world, from major manufacturers to exclusive boutique makers. The best gear, the best deals—only at Guitar Center.
LOWEST PRICE GUARANTEE | RISK-FREE RETURNS | EXPERT ADVICE | BEST SELECTION
GET HANDS-ON AT ONE OF OUR 265+ STORES NATIONWIDE OR SHOP ONLINE AT GUITARCENTER.COM

EARTHQUAKER DEVICES
Fuzz Master General

BY CHARLES SAUFLEY

Univox's Shin-Ei-designed Super-Fuzz is rightly regarded as a classic, though few guitarists would claim it's as versatile as a Fuzz Face, Tone Bender, or Big Muff. The Super-Fuzz's high-octave jabs and big, compressed fuzz may have made the Who's *Live at Leeds* magical, but in reality it can be a beast to control.

EarthQuaker Devices' new take on the Super-Fuzz, the Fuzz Master General, isn't a lot easier to manage, but its ability to switch between germanium, silicon, or no clipping diodes at all, as well as its variable tone knob (which takes the place of the Super-Fuzz's two-position tone selector) make it a much more varied and versatile little monster.

Detonation Switch

You might expect the Fuzz Master General's circuit to be a busy affair, given its multi-octave complexity and diode-switching functionality. It's not. The board takes up less than half of the interior space, leaving plenty of room for a 9V battery.

The best way to explore the General's multi-faceted personality is to move through the three diode-clipping options. Voice one is germanium-diode mode, which is most like a vintage Super-Fuzz. Like most Super-Fuzz-type pedals, the General's intrinsically high compression means you'll probably have to keep the fuzz and level wide open to be heard over a stampeding four- or five-piece rock band. (Guitarists in power trios or duos will have a lot more leeway in this respect—it's little wonder Pete Townshend and Dan Auerbach both use Super-Fuzzes.) Throwing all the controls wide open—that is, fuzz and level at maximum, with tone at a brighter setting—is not without peril, though. The Fuzz Master General can become a piercing feedback demon if you're not careful. If it does, take advantage of the variable tone knob, which scoops the 1k range.

Germanium mode also offers more control from your guitar's volume knob. It's hard to say whether greater sensitivity to volume attenuation or a smoother distortion curve adds to the responsiveness. But whatever the reason, the softer germanium clipping gives you more power to tame the General's unruly side.

Octave Shape-Shifting

One cool thing about guitar-volume attenuation with both the silicon- and germanium-clipping modes is how the fuzz characteristics can shift. Lower guitar volume highlights the almost ring-modulated quality of the octave fuzz—especially on single notes. One of my favorite maneuvers was to move from an arpeggiated triad to a power chord in the course of a phrase. The triad's single notes took on a metallic, almost electric-sitar-like resonance, while the power chords sounded tight, punchy, and huge—a very cool contrast. The tone knob is especially useful on the germanium side, not least because you can tame the pedal's penchant for feedback at the brighter settings. The ability to move through a variable EQ filter range rather than only select a 1kHz filter (as on the old Super-Fuzz) really enhances the EarthQuaker's flexibility.

Paradoxically, the General's silicon side—with its harder clipping characteristics and greater compression—can feel more forgiving, at least where picking dynamics are concerned. Though it's worth noting that, in any mode, all the Fuzz Master's clipped-octave content doesn't easily forgive sloppy picking. Complex chords can sound messy too, but the octave presence makes I-V power chords and simple note clusters like double stops and minor thirds sound huge.

The General's third voice is destructively massive. There's no clipping in this circuit, which means there's a less buzz-y fuzz presence. But it's insanely loud. Guitar-volume attenuation is less effective in this setting—lower settings can generate bizarre clipped and quasi ring-modulated tones in single-note lines. The real beauty of the third voice is the capacity to get the sweet octave essence of a Super-Fuzz out over a loud, dense band mix.

The Verdict

If your reasons for avoiding a Super-Fuzz-type circuit include a lack of dynamic control or the sense that you're paying a lot for a one-trick pony, EarthQuaker Devices' Fuzz Master General may change your mind. At 185 clams it's a bit spendy, and other Super-Fuzz clones out there might more authentically nail the hairy compression of the original. But the flexibility of diode switching and the variable tone-shaping knob make this a much more capable and versatile octave fuzz—and a better value.

RATINGS

PROS Offers more-versatile versions of the yummy Super-Fuzz voice. No-clipping mode is loud enough to be heard above Deep Purple in its prime. Variable tone knob is far more useful than the Univox 1kHz scoop.

CONS Lacks some of a good Super-Fuzz's buzzing wooliness.

Tones	4½
Ease of Use	4
Build/Design	4½
Value	4

$185 street
earthquakerdevices.com

CLICK HERE TO HEAR this pedal at premierguitar.com/oct2015

BACK BY PUBLIC DEMAND...

In 1987, Jim Marshall celebrated two anniversaries: his 50th year in the music industry and his company's 25th. And thus the Silver Jubilee Series was born. The 2555, 100 Watt, valve head quickly became legend, and due to sheer public demand it's now back as the 2555X Silver Jubilee re-issue.

- 100-Watt valve head (3 x 12AX7, 4 x EL34)
- Identical circuit as the original
- High (100W) and Low (50W) Output options
- Beefed-up switching, heaters and wiring (high temperature and voltage resistant)
- Silver front panel and vinyl – just like the original
- Two footswitchable channels: Clean/Crunch and Lead
- Series FX Loop & DI Output
- External Bias Points added to the Power Amp
- Matt-black chassis, black PCB and wires
- Matching Angled and Straight 4x12" cabinets loaded with Celestion "Vintage 30" speakers
- Made in Britain, With Pride

FOR MORE INFORMATION VISIT MARSHALLAMPS.COM OR CONTACT YOUR LOCAL MARSHALL DEALER. #LIVEFORMUSIC

Marshall

Marshall USA, 1000 Corporate Grove Drive, Buffalo Grove, IL 60089, USA

ELECTRO-HARMONIX
Octavix

BY MATTHEW HOLLIMAN

Watch the video!

The '60s saw its share of radical fuzz boxes, but the Octavia was perhaps the wildest one of all. Roger Mayer's creation gave Jimi Hendrix another weapon to redefine lead guitar (as if he needed it), and with the release of "Purple Haze" in 1967, the sound of octave fuzz became a yowling part of a radical new electric guitar vernacular.

The Electro-Harmonix Octavix recreates much of the sound and vibe of the original Octavia. Packed in the company's Nano-size enclosure, it comes with a pretty diminutive price tag too.

An Octave Above

Putting an octave fuzz to the Hendrix test demands a Stratocaster, but I also used a Jaguar and Gibson Les Paul to help the Octavix drive an Orange OR50. With Stratocaster in hand, boost at 3 o'clock, octave at 2 o'clock, and the center toggle in 9V mode, you're squarely in the Purple Haze ballpark. You can also get cool Hendrix-style lead tones in 24V mode with the boost kicked up at 4 o'clock, but to my ears, the extra headroom makes things a little too sterile for the more chaotic side of Jimi's tone, and the tail on any given note lacks that essential sputtering quality. That said, the 24V mode is perfect for more precise picking and lead flurries, and highlights both the octave effect and the richness of the overall fuzz spectrum.

The octave tones are rich and authentically '60s....

Purple Psychedelicizer

For a newbie, it can be tricky to get the hang of an octave fuzz box. The controls, however, are fairly straightforward. The master volume knob is self-explanatory. The boost knob controls the fuzz amount, and the octave knob controls the amount of octave-ized output you hear along with the dry signal. Turning the octave value completely counterclockwise defeats the octave effect. A very useful addition is the center-mounted voltage toggle, which switches between 9V and 24V input power. The 9V position approximates the same battery power that would have driven an original Octavia and adds a little vintage sag to the output. The 24V setting adds tightness and accentuates high-end detail in the octave effect. A 9.6V power supply ships with the Octavix, but you can also use a 9V battery. With its Rick Griffin-inspired, back-to-the-Fillmore psychedelic paint job, the Nano-sized enclosure is a little flashier than most EHX Nano pedals.

The Octavix lives by the same rules that apply to most octave fuzzes. Humbuckers lend a smoothness and uniformity to the fuzz and octave content. Single-coils accentuate the splattery qualities of the octave fuzz—especially in 9V mode. With a wah in the mix, I got the best results by placing the Octavix before my RMC wah in the chain. (Placing it post-wah means obscuring the octave effect when your wah filters out high-end content.) The Octavix will sometimes sound less effective with other fuzzes, which can turn the octave output into a mangled mess. These limitations aside, the Octavix is pretty versatile, and even the straight-up fuzz tone, which you get by dialing out the octave, is cool on its own. In 9V mode, the Octavix has a burly, growling quality. With the 24V toggle engaged, it's a bit cleaner and less rebellious, but very hot.

The Verdict

The street price for this little octave fuzz is damn near a steal. The octave tones are rich and authentically '60s, and the 9-24V toggle switch makes it a lot easier to tailor your sound to a specific musical setting than in the old days. If you're looking for an Octavia-type effect on the cheap, this is a great solution that works well with any pickup configuration.

RATINGS

PROS Good tonal range. Ships with a 9V adaptor. Voltage toggle is a plus.

CONS None.

Tones	4.5
Ease of Use	4.5
Build/Design	4.5
Value	5

$89.50 street
ehx.com

CLICK HERE TO WATCH this pedal at premierguitar.com/oct2015

ATG-1

by antares

Modeling. Tunings. Virtual Capo. Doublings.

... and Perfect Intonation.

autotuneforguitar.com/atg1

CELESTIAL EFFECTS
Aries Beast

BY JORDAN WAGNER

Celestial Effects' Aries Beast Distortion is a pedal worthy of its astrological namesake. It's intense, forceful, and hot-blooded. And while countless pedals have attempted to crack the heavy-amp-in-a-box code with mixed results, the Aries gets very close, thanks to a unique EQ section with two flexible gain stages.

God of War

The Aries' two gain stages are op-amp driven. One has no clipping stage, and it cascades into the second op-amp stage, which uses MOSFET clipping diodes. The very different voices of the two gain stages—and the fact they can be adjusted individually—is critical to the variety of distorted tones. The first stage, which is controlled by a single knob—gain—sounds open and wide. The clipping-diode stage has a tighter, more compressed sound and is controlled by the drive knob.

The Beast's 3-band EQ is key to the pedal's sonic possibilities. Treble blends the signal coming from the treble capacitor with the signal going to the bass and mids controls. Turning it up reduces overall volume a bit, while turning it down adds bass and midrange. Reps from Celestial say they could have defeated the loss in volume with a larger treble cap, but found that the smaller cap gave the pedal the voice they were after. Celestial also designed the circuit with as little noise filtering as possible in order to maximize signal pass. The unit can be powered with a 9V battery, a center-negative 9V adapter, or an 18V center-negative adapter, the latter of which yields higher headroom.

Zodiac Killer

With a Gibson Les Paul, a Soldano Lucky 13, and the Aries' controls at noon, the pedal unleashed a brutal, meaty distortion. The midrange was cutting, with a trace of cocked-wah honk—but with a very muscular body underneath. It reminded me a lot of Alice in Chains and early *Undertow*-era Tool, and was perfect for heavy dropped-D riffing and sustained leads on low notes. Not too many high-gain distortion pedals highlight mids this prominently, and according to Celestial that *was* a design goal. The mid sweep is very wide, and the pedal's more dimensional midrange has presence akin to a cranked Marshall. The Aries' EQ section, too, has a very Marshall-like response and feel. The mids and lows react interestingly to changes from the treble knob—rising and receding in prominence along a nice, even curve as I increased or reduced high end.

The gain section is interactive and varied, too. Lowering the gain to 10 o'clock and increasing the drive to 3 o'clock yielded fierce, Dual Rectifier-like growl with searing highs and tight lows—perfect for palm-muted riffing. The midrange control, meanwhile, is both sensitive and rangy at these drive levels—making it a cinch to achieve heavy, scooped Dimebag Darrell tones. Raising gain to 2 o'clock and dropping drive to 11 o'clock expanded the harmonic content of the low end and opened up the high end, yielding a crunchy, British-style overdrive that was smooth and extraordinarily touch responsive. And when I lowered the volume controls on my Les Paul, the roaring distortion morphed into a sweet, purring, plexi-like overdrive.

The Verdict

For all-out aggressive distortion with amp-like responsiveness, it's hard to go wrong with the Celestial Effects Aries Beast Distortion. It has more than enough gain to satisfy the can't-get-enough-dirt set. Its onboard EQ and dual distortion circuits offer a lot of versatility, and it's a sturdy mother of a pedal. All the range in the EQ and drive section means it demands a little practice and get-acquainted time. But the investment will, for many, reveal a thrilling and uncommonly versatile distortion tool.

RATINGS

PROS Muscular, touch-responsive distortion. Wide-ranging, interactive controls. Built like a rock.

CONS Can be difficult to balance dirty tones with an amp's clean channel.

Tones	4.5
Ease of Use	4.5
Build/Design	4.5
Value	3.5

$179 street
celestialeffects.com

CLICK HERE TO HEAR this pedal at premierguitar.com/oct2015

Höfner

Since 1887

Producing iconic instruments is part art, part science.

Mostly, it is a process of passion and desire.

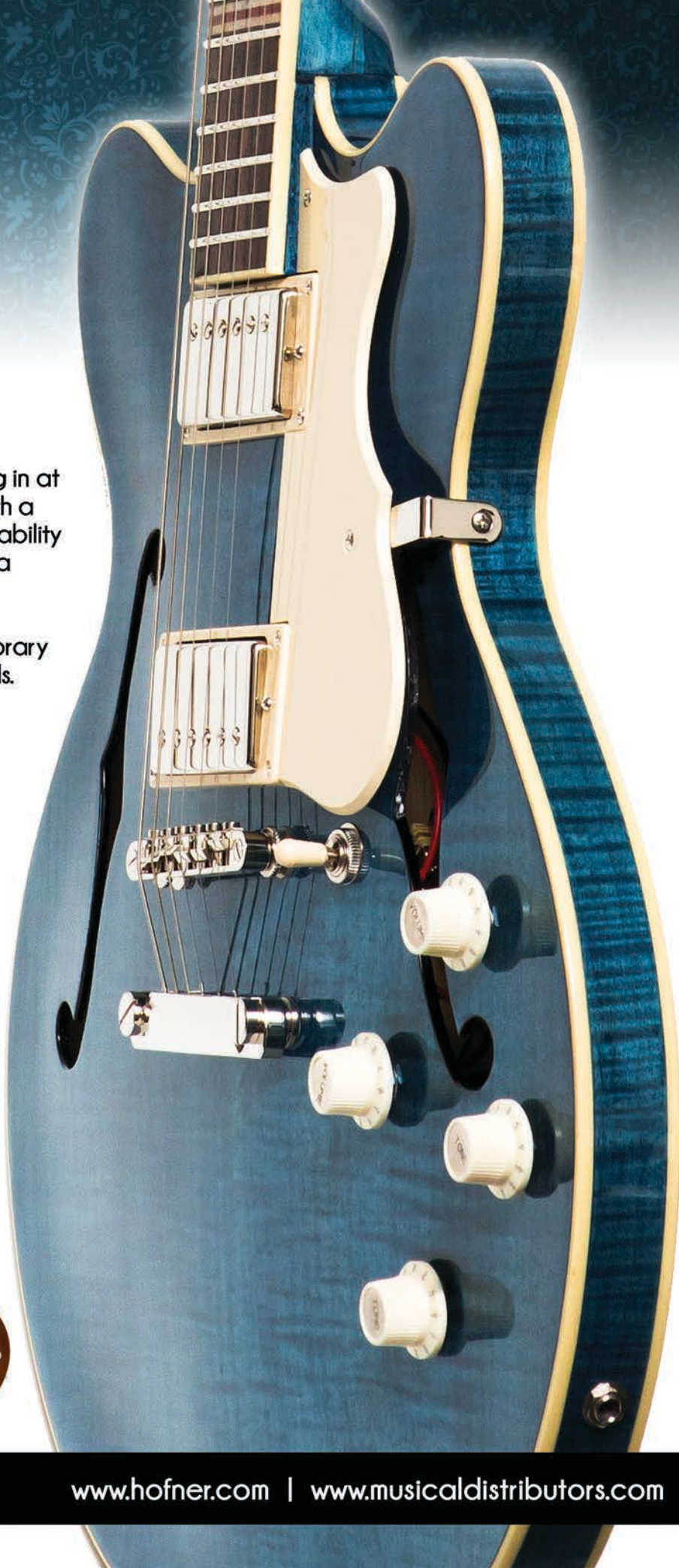
Based on the original 1960's body shape, and coming in at a svelte 6.5 lbs, the **Höfner Verythin** earns its name with a body depth of 1.25". The **Verythin**'s comfort and playability belie the full, expressive tones one would expect from a much larger, heavier, instrument.

Available in a full assortment of vintage and contemporary finishes, the **Höfner Verythin** looks as good as it sounds.

Take an opportunity to discover the legacy.

VERYTHIN

Tone. Feel. Performance.



MDG MUSICAL DISTRIBUTORS GROUP

www.hofner.com | www.musicaldistributors.com

STOMP UNDER FOOT
Sonic Warfare

BY CHARLES SAUFLEY

Watch the video!

What is that warm sense of bliss and reassurance that overcomes us when we see a one-knob stompbox? It's almost primal. Perhaps in this age of overflowing pedalboards and stompboxes with a thousand knobs and blinking LEDs, a one-knob fuzz whispers to our cluttered subconscious: "Be calm, my child—this time, you don't have to *think*."

And with Stomp Under Foot's Sonic Warfare, you don't have to think—not much anyway. It's a silicon fuzz with a Fuzz Face pedigree. And while that single knob might instinctively seem limiting, it's a meaty, many-hued fuzz that's highly responsive to guitar volume changes and picking dynamics, providing a spectrum of sonic color.

Mod Roots, Siliconized and Simplified

The Sonic Warfare is closely related to the '90s Colorsound Fuzz Box, which was derived from the Jennings Fuzz of the late '60s, which was a simplified cousin of the Fuzz Face, Tone Bender "MK 1.5," and Vox Distortion Booster.

To say the Sonic Warfare is rooted in a proven circuit is an understatement. When you look inside, you understand the appeal for builders and players alike. It's elegantly simple, with just two BC109 transistors and a thimbleful of capacitors and resistors, all on a board about the size of postage stamp. There's not a lot to screw up, nor a lot of tone-robbing circuitry. Like every Stomp Under Foot pedal we've seen, it's a neat, professionally executed circuit.

Dumb It Down, Turn It Up

Basically, the Sonic Warfare is a fuzz with the volume fixed at maximum with a variable fuzz control. As such, unity gain occurs far down the single knob's range. It's a somewhat counterintuitive arrangement at first—but with so few other distractions, we trust you'll get the hang of it.

One knob might suggest that there are few sounds to extract from the Sonic Warfare, but that's not the case if you're willing to work with your guitar's volume and tone knobs—the pedal is highly sensitive to such adjustments. And even if you can't get the near-clean tones you might source from a germanium variation of the circuit, guitar-setting changes profoundly reshape your results.

High fuzz knob settings add a touch of high-mid sizzle and compression. Like Stomp Under Foot's Fuzz Face-inspired Hellephant, it's on the higher-gain side of the Fuzz Face spectrum, which means less dynamic wiggle room. With large amps that have less natural compression, pedal-to-the-metal settings can be just a hair crispy, especially with single-coil pickups. But a little guitar volume attenuation gives the wide-open Sonic Warfare a slightly woolier and more controlled personality that's a great fit for chords and lyrical lead lines. With small tube amps, the sizzle and compression are a better fit. *Led Zeppelin I* fans take note: This pedal and a 15-watt amp are an explosive combination. (Yeah, it's not the fuzz circuit Pagey used, but it yields similarly powerful results.)

At lower gain levels the reduced compression makes high-midrange and top-end harmonics sing (a beautiful combo with single-coils). Variations from volume attenuation are more subtle at these relatively subdued fuzz levels. Lower guitar volume makes the output less splatty and more dynamic (though again, you can't quite reach the near-clean tones you'd get from a germanium Fuzz Face at similar levels). With both guitar volume and fuzz amount lowered, chords are airy yet punchy and harmonically detailed. It's an ideal voice for overdubbing rhythm parts without reducing your mix to a muddy mess.

The Verdict

The Sonic Warfare is a beautifully uncomplicated affair. Turn the single knob all the way up, and it sounds glorious—a rowdy but *slightly* civilized fuzz amalgam of harmonics, light, air, and punky attitude. But there are also lovely—and even more civilized—fuzz and overdrive shades within the range of the minimal control set. It's hard to not wonder how much more dynamic range we might hear from a germanium version of this circuit, especially given how much nuance Matt from Stomp Under Foot has extracted from this silicon version. Then again, a softer, more nuanced Sonic Warfare might mean less of the savage punk grind that makes the Sonic Warfare such a delightfully uncomplicated adrenaline rush.

RATINGS

PROS Delicious silicon fuzz, punky and harmonically rich. Wonderfully simple. Dynamically responsive for a silicon fuzz.

CONS High-gain voice can sound sizzly with some big amps. Could be cheaper given the minimal parts count.

Tones	4½
Ease of Use	5
Build/Design	4½
Value	3½

$145 street
stompunderfoot.com

CLICK HERE TO WATCH this pedal at premierguitar.com/oct2015

©2015 Yamaha Corporation of America. All rights reserved.

MULDER AUDIO
X1

BY DAVID VON BADER

Until recently, Colorado-based Mulder Audio exclusively made audiophile cables and wiring. A funny place from which to jump into overdrive stompboxes, you say? Perhaps not. The principles of amplification are pretty much the same whether it's a stereo, guitar amp, or overdrive. And a stereo audiophile probably knows a few things about reducing noise that the average guitar goon can't fathom.

Mulder Audio's foray into overdrive, the X-1, has the beautifully made look of a pedal built to audiophile standards. Better still, is dishes heaps of dirty vintage-flavored goodness with a versatility that belies its streamlined design.

Overdrive Options Abound

The X-1's control layout is stupidly simple. But between the changes in distortion texture yielded from its selectable diodes, the considerable gain on tap, and the impressively musical way the X-1 responds to guitar volume adjustments, the X-1 can cover everything from warm, clean boost to growling, hairy near-fuzz.

With the pedal's volume and drive knobs maxed and the silicon diodes selected, the X-1 and an amp at the verge of breakup deliver the compressed sound and feel of a dimed low-power tube amp. (Imagine the chewy, harmonically dense fuzz of *Deguello*-era ZZ Top.) The compression is especially nice in the bass frequencies and doesn't compromise low-end focus. And while it lacks EQ controls, the X-1 blended well with every amp and guitar combination I tried, thanks to its glowing transparency.

The compression is especially nice in the bass frequencies and doesn't compromise low-end focus.

Unidentified Clipping Objects

The X-1 eschews ICs and op amps in favor of a simple single-silicon-transistor circuit. Much of its varied personality can be chalked up a set of germanium and silicon clipping diodes, which can be selected or combined via the pedal's 3-way toggle. Different diode choices offer distinct breakup textures and shift the pedal's bass response.

The X-1's innards reveal a hand-wired circuit made with Mulder's own high-fidelity wire and large-format capacitors. The unit has no circuit board—components are linked via a length of terminal strip.

The X-1's harmonic liveliness makes it ideal for overcoming backline challenges. At a walk-on gig, the X-1 and my Les Paul Jr. were enough to transform the provided Electro-Harmonix 44 Magnum power amp and no-name 1x12 cabinet from a sterile, lifeless canvas into a fire-breathing rig that kept up surprisingly well with the high–ticket boutique tube amps elsewhere onstage. When mated with an early-'70s 100 watt Marshall Super Lead, the X-1 added extra sparkle and grunt to the already burly Marshall, especially on the extremely satisfying setting that combines the relatively soft clipping of the germanium diodes and the harder-clipping silicon set.

The Verdict

The X-1 Overdrive delivers that coveted trifecta of overdrive traits: touch sensitivity, harmonic richness, and a wide gain range, from near-clean to filthy. The $260 price may be too rich for some, but for players who crave overdrive variety and must contend with varying backlines, its many voices make it a valuable tool.

RATINGS

PROS Versatile. Excellent tone. Touch sensitive.

CONS May be too vintage-sounding for some. Pricey.

Tones	4.5
Ease of Use	5
Build/Design	5
Value	3.5

$260 street
mulderaudio.com

CLICK HERE TO HEAR this pedal at premierguitar.com/oct2015

NEW
Grace Harbor Guitars
Dreadnought, Grand Concert, Parlor
and Classical (nylon string) models
Quality craftsmanship - inside & out
Great tone and projection
Hard Case Included
Strum one today!
"rawr"
Grace Teague is playing the GHP-200 Parlor
www.GraceHarborGuitars.com

Fulltone
Deja'Vibe
MDV-3
CANCEL
VOLUME
INTENSITY
VINTAGE
CHORUS
Deja'Vibe
MDV-1
BYPASS
SPEED
Fulltone
The exclusive 'vibe choice of Robin Trower...look no further.

PREMIER GEAR

IBANEZ Tube Screamer Mini

BY JOE CHARUPAKORN

It's hard to imagine an age B.T.S. (Before Tube Screamer.) True, there were fuzzes and distortions, many of which could reasonably function as overdrives. But the Ibanez TS family changed the very meaning of the term overdrive, spawning legions of low- to mid-gain imitators. Both boutique builders and large manufacturers (including Ibanez) based an industry on alleged TS improvements. But to many in the "if it ain't broke, don't fix it" camp, the classic Tube Screamer is still "the one." For these purists, Ibanez's latest creation, the Tube Screamer Mini, may be the only Tube Screamer that represents an actual improvement—not in sound or functionality, but in size. It's a mere is 3.5" long and less than 1.5" wide.

Made in Japan, the Tube Screamer Mini is driven in part by the JRC4558 IC chip found in original TS-808s. The Mini's controls are crammed into a green enclosure decked out with TS-808-style graphics. There's a button-style footswitch, one big knob for drive, and two smaller knobs for tone and level. The small format means there's no room for a 9V battery—you must us an AC adapter. (Given how many players rig their pedalboards with daisy-chained power supplies, this shouldn't be a problem, unless you have an Eric Johnson-like fixation with battery types.)

Test Tube Twins

I tested the Tube Screamer Mini with an Ernie Ball/Music Man Axis Sport and a Mexican Fender Strat, both played through a Fender '63 Vibroverb reissue. I also pulled out a vintage Tube Screamer to compare, setting the knobs on both pedals to the same spots: tone and overdrive around 1 o'clock, and level around 11 o'clock. At first it seemed as though the Mini had a bit more gain than the original, but when I advanced the bigger box's drive knob a hair, I got near-identical sounds.

Even with the gain up high, the Mini was incredibly responsive to dynamics.

Authenticity tests out of the way, I enjoyed putting the little TS to work in real-world jamming situations. With overdrive set to 3 o'clock, tone at noon, and volume around 1 o'clock, I got a rich, creamy sound perfect for flashy blues licks and double-stop rhythm figures. Even with the gain up high, the Mini was incredibly responsive to dynamics. I could get a relatively clean sound on harmonically dense chords by using a gentle thumbpicking approach, while strong pick attack and power chords generated heavy crunch.

Keeping the same tone and volume settings but setting the drive to nearly nil, I got a thick boost that added body and just a hint of grit, lending my "clean" tone an exciting, multidimensional feel. The signature midrange emphasis of the Tube Screamer circuitry remained in this near-clean setting, adding presence and sustain. And what's better than one TS? Try using the Mini as a clean boost to overdrive another Tube Screamer. If you like lively, midrange-heavy lead tones that can rise above a noisy band, you'll love this setup.

The Verdict

There's a reason the Tube Screamer is among the most popular pedals of all time—it's a sort of tonal Swiss Army knife. It can function as an overdrive/boost, or add presence to an already hot signal. While the Mini is small enough to fit into a shirt pocket, don't be fooled—it's 100-percent Tube Screamer. Even if you already own a Tube Screamer or TS-variant, there's no reason not to pick up a Mini. With its broad range of great sounds, portable size, and attractive price, it can expand your tone palette in myriad ways—on the cheap, and without taking up much room.

RATINGS

PROS Extremely compact. Classic TS tone. Great picking sensitivity. Organic feel.

CONS None.

Tones	♥♥♥♥♥
Ease of Use	♥♥♥♥♥
Build/Design	♥♥♥♥½
Value	♥♥♥♥♥

$79 street
ibanez.com

CLICK HERE TO HEAR this pedal at premierguitar.com/oct2015

Dream in Color

Turn your dreams into reality... At Guitarfetish.com we sell the very best guitars, basses, cases, parts and pickups, priced at wholesale, direct to the public. Whether you're looking to build a guitar, upgrade a guitar or buy a new guitar, dreams are always within reach at Guitarfetish.com.

All of our products are designed by musicians, for musicians.... priced for musicians. Remember, you can ONLY buy GFS® Pickups, GFS® Electronics, Xaviere® Guitars, MODboards, Slick® Guitars and Slick® Pickups and XGP® Parts from Guitarfetish.com... Won't you stop by and check us out?

Slick®, GFS®, XGP®, and Xaviere®, are sold exclusively at **www.Guitarfetish.com**

THORPYFX Gunshot

BY ALEX MAIOLO

Whether you trace its origins to Link Wray, the Kinks, or Atomic Rooster, riff rock was spawned from the sound of an amplifier driven to filthy extremes. Overdrive pedals were originally designed to replicate that tortured-amp sound. Like many great effects, these pedals often missed their intended mark, but sounded great nonetheless. ThorpyFX, however, *nails* the sound of an amp at the verge of exploding. In fact, if someone were to ask me what my favorite new *amplifier* was, I might just choose the ThorpyFX Gunshot. You could call it "AC/DC in a box," but that would be selling its tonal flexibility short.

Perhaps the most intoxicating aspect of the Gunshot sound is its complexity. At times it sounds like two amps running at once.

Beautiful Beast

The Gunshot is well made nearly to the point of being overbuilt. The enclosure recalls old, slope-front pedals by Sola Sound, Vox, and Colorsound, but with improvements like a recessed control panel and a heavy, laser-etched, stainless steel enclosure. I/O jacks are on the back panel—always good for conserving pedalboard space. Handsome purple chicken head knobs match the LED. It's a striking package.

The first three controls—gain, tone, and volume—are self-explanatory. Meanwhile, a fourth control, calibre, sets the level of a secondary overdrive stage that cascades with the first drive section.

Dirty Zep and the Devil's Kazoo

A PAF-loaded Les Paul seemed like a must for evaluating the Thorpy, but I also used an SG with P-90s and a Standard Telecaster. The first amp on deck was a Marshall JCM800, paired with an old Sound City 4x10 cabinet. I set the Gunshot's gain and calibre at noon. Power chords had exactly the combination of clang and beefy lows I'd hoped for, but on this particular amp I needed to dial back the pedal's gain quite a bit.

Magic happened when I moved over to a 6V6-powered, blackface-flavored Carr Sportsman at the verge of breakup. As much as I love the Carr's natural distortion when dimed, the added harmonic content and drive from the Thorpy had me cackling with delight. The combination was a joy for repetitive power progressions and classic blues-rock leads. The Telecaster and the Gunshot delivered spot-on early Zeppelin tones, and the SG's neck pickup with the tone rolled back spat out funky/fuzzy "devil's kazoo" tones.

Like a tube amp, the Gunshot is responsive to your guitar's controls. I've always been bad about using the volume knob to add and subtract distortion, but the Thorpy's responsiveness makes the practice especially rewarding.

Perhaps the most intoxicating aspect of the Gunshot sound is its complexity. At times it sounds like two amps running at once, thanks in part to the beautiful interactivity of the gain and calibre controls as they balance dirt, dimension, and space. There's also a pronounced midrange bump that never seems to come at the expense of the treble or bass registers.

The Verdict

ThorpyFX has a winner on its hands with the Gunshot. It's a little on the expensive side, but it cuts no corners. Frankly, I have no criticisms, though I wouldn't recommend it if fat, rocking riffs aren't your thing—or if you hate having a great time with a guitar.

RATINGS

PROS Rich, balanced, and organic-sounding amp overdrive tones. Exemplary build quality.

CONS Expensive.

Tones	♥♥♥♥♥
Ease of Use	♥♥♥♥½
Build/Design	♥♥♥♥♥
Value	♥♥♥♥♡

$306 street
thorpyfx.com

CLICK HERE TO HEAR this pedal at premierguitar.com/oct2015

PORTRAITS IN TONE

Richie Kotzen RK5

Not just another version of the Fly Rig 5® simply bearing his name, the Richie Kotzen RK5 Signature Fly Rig was a close, year-long collaborative effort. Meticulous about every facet of his playing, singing, songwriting and tone, Richie's attention to the details of this pedal was nothing less.

What distinguishes the RK5 from the Fly Rig 5 is Richie's Signature OMG overdrive. Tuned specifically to Richie's ear, the OMG section brings in the organic Class A-style distortion, but with a tighter, snappier response. It is designed to articulate every nuance of Richie's dizzying playing style for all modes and moods, from clean to aggressive and from rhythmic chords to infinite sustain when it's solo time.

The RK5 offers the same other essential features as the Fly Rig 5: the all-analog SansAmp™, reverb, delay with tap tempo, and a powerful boost. For fly gigs across the globe, jamming at the local hang, and running off to last minute sessions, just pop your RK5 into your guitar case and head for the door.

photo by greg vorobiov

Actual size: 11.5"l x 2.5"w x 1.25"h • Weight: 18.6 oz.

The Richie Kotzen OMG Signature Overdrive is also available as a stand-alone pedal.

TECH 21

DESIGNED AND MANUFACTURED IN THE U.S.A.

WWW.TECH21NYC.COM

MAXON
OD808X Overdrive Extreme

BY JORDAN WAGNER

Tube Screamer clones and versions have come and gone over the years, but few have been specifically tailored to heavy players quite like the OD808X Overdrive Extreme. Metal and hard rock guitarists have long used 808-style pedals to tighten up their tones, and the OD808X is designed to deliver extra clarity and definition to boosted high-gain sounds.

Tried and True

The OD808X uses the same control configuration you'd see on any basic Tube Screamer—knobs for overdrive, volume, and tone. But the OD808X is re-voiced for a much more aggressive character, a wider frequency range in the tone controls, and an additional 5 dB of volume. The pedal uses a buffered bypass circuit and accepts either a single 9V battery or a 9V DC power adapter.

The Fury and the Fire

The OD808X's pick responsiveness and dynamics are impressive. Hooked up to a Gibson Les Paul Custom and a Soldano Hot Rod 50, the OD808X added smooth overdrive to the amp's clean channel output. But the pedal also gets clean at lower guitar volumes while retaining a lot of the tight low end and crisp, airy highs you hear at full roar.

For all the extra gain, the OD808X is pretty transparent. Even at its highest gain settings, the naturally dark voicing of my Les Paul rang through loud and clear with just a trace of extra edge in the high end—which was easily remedied by a quick adjustment to the pedal's tone control or the amp's treble knob.

Compared to a lot of high-gain overdrive pedals, the OD808X is still a relatively low-gain device. This is a good thing when boosting the front end of an amp that's already overdriven. With the Soldano's drive channel and the OD808X set at maximum volume, tone at noon, and the gain at 8 o'clock, I got more sustain, fatter midrange, and tighter lows—transforming the Soldano into a hulking thrash metal machine and making lead licks feel effortless. Turning up the pedal's gain control gave my pick attack a more compressed feel without sacrificing note definition. And the fatter lows and upper mids were perfect for legato licks with the Les Paul's neck pickup. Amazingly, the OD808X does not add much noise at high-gain levels, making it an ideal booster for heavy styles dependent on chunky stop/start power chords.

Amazingly, the OD808X does not add much noise at high-gain levels, making it an ideal booster for heavy styles dependent on chunky stop/start power chords.

The midrange that defines TS-style pedals for many is very present in the OD808X. Dialing the tone control through the 10 to 1 o'clock range gave me an extra bump in the midrange, which added significant presence to the Soldano's Fender-like scooped midrange profile. And at lower pedal gain settings, the extra midrange yields a fat low-gain crunch and singing blues lead tones. The extra mids also made the pedal feel especially sensitive to pick dynamics. With the drive control cranked to the max, the extra midrange gave the Maxon/Soldano combo the brash presence of a Plexi mixed with the crispness of a Twin—an ideal combination that was perfect for unloading full Malcolm-style chords on the Les Paul's lower registers.

The Verdict

The OD808X proves that even after three decades, there's still plenty of room to tweak Maxon's timeless 808 overdrive. The pedal is a fantastic tool for tightening the low end of a driven amplifier and adding top-end presence without excessively coloring the tone. It also delivers a pretty fantastic low-gain overdrive when used with cleaner tones. For players looking for an 808-style overdrive with a little extra "oomph," the OD808X Overdrive Extreme is an excellent—even dangerous—way to go.

RATINGS

PROS Rich overdrive that doesn't lose definition with cranked, grinding amps. Great low-gain tones. Responsive.

CONS Highs can be excessively sharp due to its expanded tonal range.

Tones	♥♥♥♥♡
Ease of Use	♥♥♥♥◐
Build/Design	♥♥♥♥◐
Value	♥♥♥♥♡

$159 street
maxonfx.com

CLICK HERE TO HEAR this pedal at premierguitar.com/oct2015

KYSER

HAVING ACOUSTIC ISSUES?

DON'T FRET.

There's a capo for that.
The Kyser® Quick-Change®.

KYSER® MUSICAL PRODUCTS

Guaranteed for life.

www.kysermusical.com

MADE IN USA

KYSER HANDLES IT®

Read PREMIERGuitar wherever and whenever you want!

Subscribe today and get 12 issues for $11.99!

PremierGuitar.com/apps

KIESEL
CARVIN GUITARS

www.CARVINGUITARS.com
858 GUITARS
ALWAYS MADE IN AMERICA

WAMPLER
Plexi-Drive Deluxe

BY MATTHEW HOLLIMAN

Watch the video!

It seems as if players and pedal makers will never stop searching for alternate paths to early Marshall tone—especially given what early Marshall amps cost these days. Back in 2008, Wampler Pedals introduced the Plexi-Drive, a Brit-bruiser-in-a-box that delivered much of the righteous grit of vintage plexis. A new version, the Plexi-Drive Deluxe, adds a more powerful EQ section and a pre-gain boost control, expanding its range and making it easier to tune the pedal to suit different amps.

The Deluxe replaces the original Plexi-Drive's single tone knob with an active 3-band EQ section, while the new pre-gain circuit adds TS-like, midrange-heavy overdrive. As on the original, there's a bass-boost toggle to simulate the low-end thrust of a 4x12" cab. There's also a bright toggle, which is great for humbuckers or dark-toned guitars. The Plexi-Drive Deluxe draws 22mA and can be powered at either 9 or 18 volts or via 9V battery.

With post gain at 1 o'clock, tones have great natural-sounding saturation....

Union Jacked

I auditioned the Plexi-Drive Deluxe with a Fender Stratocaster and an Orange OR50 with V30s. I set the amplifier clean and the pedal to unity gain—about 11 o'clock for level and post gain. (Raising post gain also increases overall volume, so best to adjust this crunch parameter to taste first, and then dial up level as needed.) Setting post gain at 10 o'clock yields mild overdrive just short of overt crunch. But you can also increase post gain and use your guitar's volume knob to adjust the gain—a method that afforded me greater control.

With post gain at 1 o'clock, tones have great natural-sounding saturation, generating crunchy chords and glassy single notes that evoke a JTM's reactivity and punch. Since my cab is already a closed-back 4x12", the bass boost function was a bit redundant, though it adds a nice weight to open-backed cabs like the one on my Twin Reverb.

Activating the midrangy pre-gain boost is a great way to elevate a lead over the mix. You can use pre gain without post gain engaged, but you need to crank it to nearly 3 o'clock for volume unity—which is to say, pre gain doesn't have a ton of range when used independently. The bright switch is probably a more effective way to boost a guitar's prominence in a mix, especially when you need to pull humbuckers from the murky low-end depths.

While my Orange's EL34s already provide some plexi-like qualities, tests on a Fender Twin Reverb proved how well the pedal can lend a plexi quality to decidedly non-plexi amps. I can't remember the last time I heard 6L6s sound so snappy.

The Verdict

The Plexi-Drive Deluxe is an excellent Marshall stand-in for backline gigs, or for players without access to real plexi tones. Its extra features add versatility and help the pedal work with many guitar/amp setups. Extra pre-boost control might have been nice, but probably not worth the clutter of knobs. The $239 price tag is pretty fair given the pedal's excellent craftsmanship. If classic plexi tones are your bag, this double drive merits a double take.

RATINGS

PROS A versatile plexi-in-a-box.

CONS No EQ control for the gain boost.

Tones	♥♥♥♥½
Ease of Use	♥♥♥♥½
Build/Design	♥♥♥½♡
Value	♥♥♥♥♡

$239 street
wamplerpedals.com

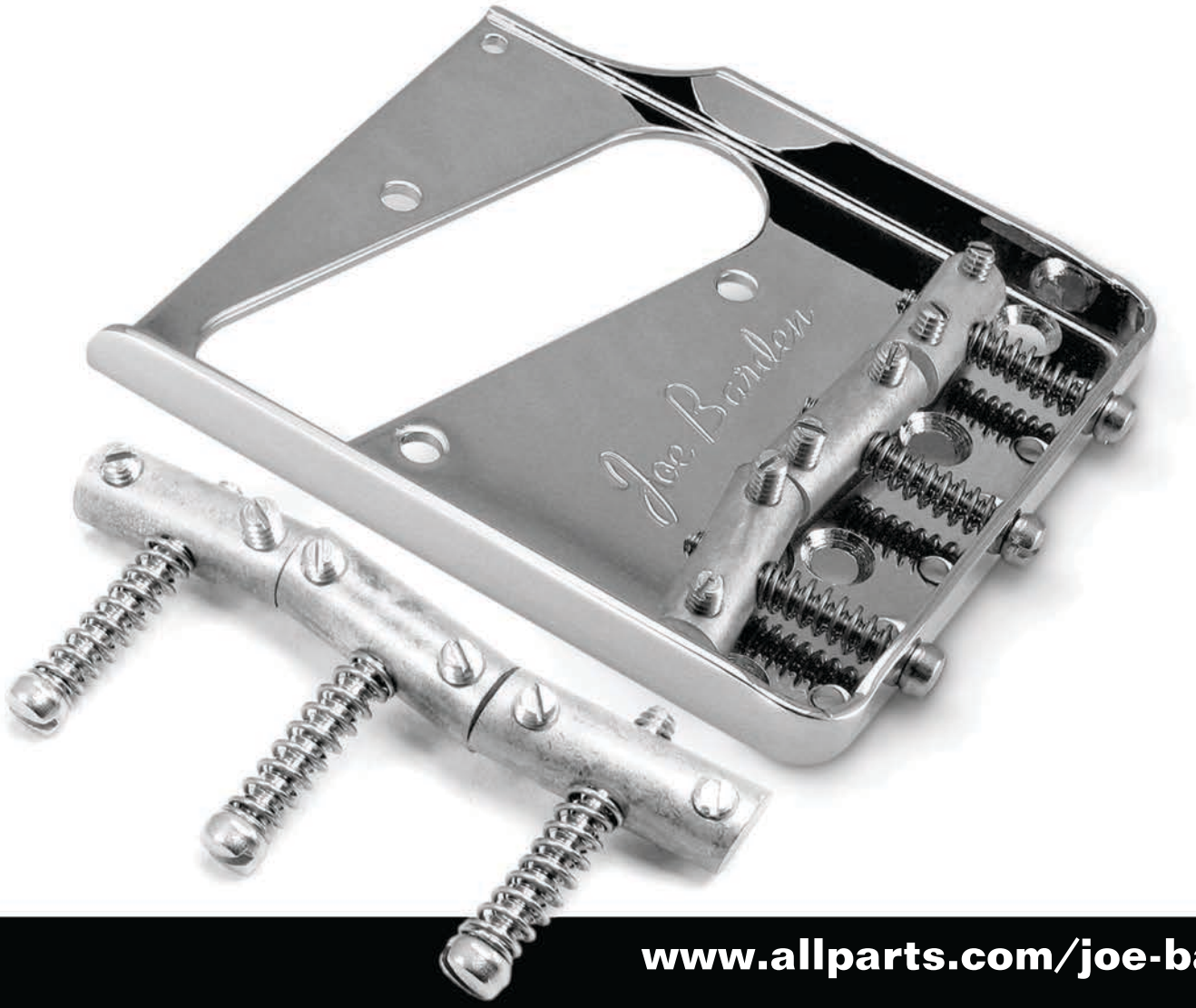
CLICK HERE TO WATCH this pedal at premierguitar.com/oct2015

ALLPARTS

America's Premier Guitar and Bass Parts Supplier

Joe Barden™

bridgeplate assemblies & compensated saddles



www.allparts.com/joe-barden

PREMIER GUITAR PREMIER GEAR

CRAZY TUBE CIRCUITS
Splash Mk3

BY JASON SHADRICK

A simple, easy-to-use reverb pedal can be as essential as a kid's favorite wooby. It comforts you when the harshness monsters jump from your speakers. And while you sometimes barely notice its presence, something just doesn't feel right when it's missing.

Thankfully, not all 'verbs are created equal. For the surf-minded, a buoyant and spongy spring sound is the ticket. The psych set might dig on the expansiveness of a large hall for mind-altering ambient settings. In other words, creating and tweaking these artificial acoustic properties is a bit of a rabbit hole. Thankfully, Crazy Tube Circuits' latest version of their Splash Mk3 reverb captures a wide array of tones in a relatively small package.

Sometimes you just don't need a million buttons, switches, presets, and a touch screen to access a wealth of tones.

Back to the Future

Perhaps the biggest improvement over Splash's previous iteration is an extra mode accessed via a central toggle switch. Surrounding the toggle is a quartet of controls that includes decay, mix, and volume, plus the mysteriously named excite. An added bonus is the push-pull mix knob that also sets the attenuation of your dry signal. Way cool!

With the first algorithm—dubbed "the exciter"—the overall sound is surprisingly warm for a digital unit. The excite knob earns its keep here: at about 11 o' clock, the wet signal starts to develop beautiful hints of modulation and harmonics that creep up and caress the dry sound as the knob is maxed out. One of my favorite tones is to dime the excite and mix knobs, yielding an odd mix of spring 'verb and hall elements, but with plenty of fundamental guitar tone. It's a natural fit for background arpeggios that need some air to sit properly within a crowded mix.

Trad Tones

For more traditional guitar reverb flavors, the second algorithm is a good place to start. The biggest issue I have with my blackface Deluxe Reverb is that it gets too deep too quickly. But with the Splash Mk3, I could walk that fine line between a soft hint of space and the crashing sound we all love. The refreshing responsiveness let me bring out different accents in in a way that rivals some of the best tube reverbs I've ever plugged into. In both the second and third modes, the excite knob exerts a more subtle effect—even maxed out, it wasn't quite as useful as in the first algorithm. (Secret trick: I'd sometimes crank the volume control and use it as an off-the-wall boost when combined with my amp's reverb.)

Rolling in the Deep

These days it's hard to miss the wash (pun intended) of ambient 'verbs on the market. It just seems like there's a growing need for cavernous, spacey tones! Splash Mk3's third mode is a luscious soundscape machine that will instantly make you gaze at your shoes. With a healthy amount of decay and a wet mix setting, the effect tiptoes on the edge of oscillation. In more ethereal settings, the ability to create faux echoes and crashing waves with the slam of your pick is exciting and inspiring. The Splash's mix control took me from the slightest hint of natural space to vast, Grand Canyon-like reverb without ever losing sight (or sound) of my guitar.

The Verdict

The Splash Mk3 is an extremely well designed box that covers much spatial territory. Sometimes you just don't need a million buttons, switches, presets, and a touch screen to access a wealth of tones. Admittedly, the Splash might work best onstage as a set-and-forget stomp, but that's a small price to pay for such a fine collection of creatively musical reverbs.

RATINGS

PROS Realistic spring reverb. Handy volume control. Impressive build quality.

CONS No expression pedal control. May be tough to adjust settings onstage.

Tones	4.5
Ease of Use	4.5
Build/Design	5
Value	4

$259 street
crazytubecircuits.com

CLICK HERE TO HEAR this pedal at premierguitar.com/oct2015

STUDIO TOOLS FOR THE STAGE

INTRODUCING **SESSION** ACOUSTIC DI

Inspired by the LR Baggs Handcrafted Video Sessions and our experience in some of Nashville's great studios, **Session™ Acoustic DI** brings our new signature studio sound to your live rig. The Session DI enhances your acoustic pickup and imparts the rich sonic character that you'd expect from an experienced audio engineer using some of the world's finest studio gear. We've captured this studio magic and put it into a compact, easy-to-use DI that will transform your live sound.

FEATURES

- » Analog Saturation enhances warmth and harmonic content
- » Compression / EQ smoothes out common problem frequencies
- » Garret Null notch filter eliminates resonant feedback
- » Variable high-pass filter attenuates extraneous low frequencies
- » VU meter visually optimizes gain for passive and active pickups
- » Ground lift switch effectively eliminates ground-loop noise
- » All discrete signal path with XLR and quarter inch outputs
- » 48V phantom power, 9V battery or 9V DC powering options
- » Rugged enclosure constructed of aluminum, steel and ABS plastic
- » Includes custom LR Baggs carrying case

L.R. Baggs

Learn more at
lrbaggs.com/session

DIAMOND
Counter Point

BY ALEX MAIOLO

The Edge walks into a bar and says, "I'll have a … Guinness." The bartender replies, "Sure, mate—but why the delay?"

Yep, you know you've entered the musical pantheon when guitar nerds invent jokes about your sound. And when the nerds chase pedals that approximate that sound, you've reached another level entirely. Edge-obsessed players are bound to swoon over the new Diamond Counter Point digital delay, which excels at generating his signature dotted-eighth delays. But what makes this simple yet lush-sounding pedal special is the ease with which you can switch between '80s tones, modern ambient colors, and '60s-style quasi-tape echo.

Solid Simplicity

The Counter Point has controls for delay, modulation, feedback, and mix. Below these knobs is a toggle to select from the pedal's four modes: vintage, galloping eighth, ambient, and extra faux tape. (A multicolored LED indicates the active mode.) There's a stout bypass footswitch, and another for tap tempo. The latter also adds or bypasses modulation when held down for one second. DIP switches in the battery compartment let you select spillover delay or true bypass. You can power the pedal via AC adapter or 9V battery.

Sailing Beyond the Edge

Analog mode is voiced much like Diamond's Memory Lane Jr. The tone is darkish, but decays didn't noticeably degrade with each repeat, an effect somewhere between digital and analog. The extra clarity is cool without sounding sterile. In this mode there's 600 ms of available delay time.

The second mode, gallop, is where you get your Edge and late-model Gilmour dotted-eighth sounds. It's a forgiving and easy-to-use setting. And if it's "Where The Streets Have No Name," "Wire," and "Run Like Hell" tones you want, just flip the toggle and fine-tune the delay time. A subtle quarter note rhythm blended with the dotted-note delays adds complexity to picked patterns and makes it easier to lock into a steady rhythm.

Ambient mode is perfect for deep, washy mood pieces—a sort of alternate approach to ambient reverb. But here you get the long trails available on modern digital units—a nice blend of analog tone and digital possibilities.

Extra faux tape adds irregular tape-like modulation, which, to my ears, benefits from Counter Point's digital clarity. You really hear the payoff at the maximum 1200 ms. delay time, where you can stack cascading patterns without getting too muddy.

Mondo Mod

The modulation control adds richness, though it's really just a depth control. (Except in extra faux tape mode, the modulation rate is fixed.) A dash of depth adds a mellow chorus effect, while higher settings get downright woozy. The result isn't always authentically tape-like, but it adds welcome texture and motion.

Another cool feature: Settings remain fixed as you toggle between modes. It's not as flexible as having actual presets, but it's a no-muss/no-fuss arrangement that works great in practice. Granted, it can be confusing when you see the rate knob at noon, but hear a slapback, though it's easy to cope with this quirk.

This simplicity requires some tradeoffs. The mode switch's label is a pair of eighth notes, when dotted eighths are but one setting. Relying on the LED color to indicate mode is also vague. If Counter Point ends up on my board, its beautiful face will definitely be defaced with Sharpie-scrawled tape.

The Verdict

Other delays make more radical sounds, and a dedicated slapback setting might have been nice. But the Counter Point's savvy balance of simplicity and functionality makes it an ideal delay for many players.

RATINGS

PROS Digital clarity meets analog atmosphere. Easy to use. Remembers settings in a given mode.

CONS Labeling could be clearer.

Tones	4.5
Ease of Use	4
Build/Design	4
Value	3.5

$279 street
diamondpedals.com

CLICK HERE TO HEAR this pedal at premierguitar.com/oct2015

HELIX

Real. Smart. Control.

Helix™ is an entirely new kind of guitar processor. The next-generation HX Modeling Engine provides authentic sound and real amp feel, and the refined UI makes it faster than ever to build intricate tones. Leverage the powerful MIDI features and extensive I/O, and make Helix the center of your entire rig.

Learn more and find a Helix Certified Dealer.
www.line6.com/helix

LINE 6

© 2015 Line 6, Inc. Line 6 and Helix are trademarks of Line 6, Inc.

PG PREMIER Guitar PREMIER GEAR

WALRUS AUDIO
Bellwether

BY JOE GORE

Watch the video!

Compared to digital, analog delays cost more and do less, so why bother? "Because," the inevitable answer goes, "they sound warmer." Old-school analog bucket-brigade delay (BBD) chips create that warmth in two ways: high-end loss (the delays get darker as they repeat) and a unique type of distortion that makes fading echoes seem to dissolve into the ether. The first quality is easy to mimic in digital—just add a low-pass filter to the delay loop, which is how most faux-analog delays work. But I've never heard a digital delay faithfully reproduce that "crumbly" BBD distortion.

Thanks to clever programing (and a ready supply of new-production BBD chips), some nouveau-analog delays are closing in on the power of digital units while providing true BBD tone. And Walrus Audio's Bellwether delay is a stellar example.

You Can Do That in Analog?

Bellwether comes in a standard BB-sized box. A peek inside reveals … *holy crap!* Look at all those parts! Twelve modern CoolAudio chips (eight dedicated to delay) and 27 trim pots! (They're not for users to mess with, but necessary during laborious factory setup—and one reason Bellwether's $349 price tag isn't surprising.)

All those chips provide uncommonly long delay times. Classic analog units usually max out around 300 ms, but Bellwether offers a full second of delay time—extraordinary for a BBD device. And that's not the only advance over vintage BBD delays. There's a dedicated tap-tempo switch, a feature unknown in the late '70s/early '80s, the golden age of analog delay. You can also connect a TRS expression pedal to control either the delay time or feedback amount. (A front-panel toggle selects the function.) That means you can generate the two classic noise-bomb tricks (runaway oscillation and the cataclysmic swoop of altering the delay time while you play) without having to stoop.

You can also modulate the delay signal via dedicated depth and rate knobs, mimicking tape-machine wow or adding a touch of chorus. Analog LFO delay modulation isn't a new idea—the old EXH Memory Man Deluxe had this feature. But here, it's more musical, with a focus on subtle settings rather than seasick wobbles. It's great for animating delays without drawing too much attention to the process. The tone knob (a simple treble-cut filter) also boasts a suavely musical range.

And there's more: An effect loop jack lets you insert other pedals in the delay path via TRS plug. (Mmm—so many options!) There's also a tap-division knob that lets Bellwether interpret taps as quarter notes, eighths, dotted eighths, or triplets. (A common digital delay feature, but rare in analog.) Bellwether runs on a standard 9V power supply (not included). There's no battery option.

Dee-licious Delay

Bellwether's core tone delivers everything players love about analog delay. It's warm and immersive, with analog's signature darkness and distortion. Just for fun, I listened to Bellwether alongside two classic vintage delays: the aforementioned Memory Man Deluxe and a first-generation Way Huge Aqua-Puss from the mid-'90s. (It's essentially a clone of the Boss DM-2, another coveted classic).

It was easy to match the relative brightness of the Memory Man and the darker voice of the Aqua-Puss, or to go brighter or darker than either. The EHX modulation is more extreme in range and depth than Bellwether's. (I generally dig extreme effects, but in this case, I far prefer the relatively delicate Bellwether pitch-shifts.) The Aqua-Puss/DM-2 has a uniquely punchy and compressed sound—the effect feels tight, almost as if it your signal had been mastered. Bellwether's tones are looser, but no less attractive. I love that DM-2 edge, but the pretty and powerful Bellwether is the one I'd take to the gig.

The Verdict

Bellwether is a BBD bombshell. It sounds as warmly immersive as any vintage analog delay, while adding powerful features usually found only in digital: tap tempo, an effect loop, realtime modulation options, a killer LFO section, and extra-long delay times. If you don't need the fancy stuff, you might be better off with a simpler, cheaper modern option, or maybe a vintage pedal. But frankly, you'd have to be sorely lacking in imagination not to find cool uses for Bellwether's superpowers. I can't imagine a happier marriage of analog color and modern functionality.

RATINGS

PROS Gorgeous true-analog delay tones. Tap tempo. Effect loop. Realtime expression control. Excellent LFO modulation. A whopping 1000 ms. of delay time.

CONS Justifiably pricy—but pricy nonetheless. No battery option.

Tones	♥♥♥♥♥
Ease of Use	♥♥♥♥♥
Build/Design	♥♥♥♥◐
Value	♥♥♥◐♡

$349 street
walrusaudio.com

CLICK HERE TO WATCH this pedal at premierguitar.com/oct2015

Spector
THE POWER BEHIND YOUR TONE.
EURO4LX
USA SERIES NS2
KENMARE SERIES
EMG
EMG
EMG
BUILDING FINE INSTRUMENTS SINCE 1976
WWW.SPECTORBASS.COM

KORG SDD-3000

BY MATTHEW HOLLIMAN

Few players are as inextricably associated with a guitar effect as The Edge and his '80s Korg SDD-3000, which became a fixture in his rig right around *The Unforgettable Fire* and *The Joshua Tree*. The sound is immediately identifiable: a stuttering cascade of notes dancing over a decaying trail of percussive pick attack. The effect has been an obsession for U2 freaks for decades. So with a little input from The Edge's guitar tech, Dallas Schoo, Korg reissued the SDD-3000 digital delay, this time in a more convenient and versatile stompbox format.

The stereo delay sounds are beautiful and expansive, especially when using percussive delays.

From Rack to Floor

Though you can dive right in and get cool delay sounds, it takes time to explore all the SDD-3000's capabilities. A four-footswitch array occupies the lower third of the pedal. Two of these are primarily navigation for the two sound banks, which hold up to 40 presets each. The A and B footswitches select banks, while the bank up/down footswitches navigate the presets. You can cycle through them in sequence, or hold down the up/down switches to move in increments of ten. The bank down switch is also a tap tempo control when you hit it twice, and engaging the synch function allows you to select tap-tempo divisions as short as 32nd notes.

The SDD-3000 is a treasure trove for the creative delay user. Apart from the classic SDD-3000 sound, there are seven delay types (reverse, tape, analog, modern, kosmic, pitch, and panning), a modulation section with a selectable waveform-generator and frequency knob, a feedback control with a 6-band filter, and a mix control. Additionally, there are two attenuators (input and output) similar to those on the original rack-mount design. The input attenuator can be switched to -30 dB or -10 dB. The output attenuator can be switched to -20dB or +4db. (The latter is good for going direct to a PA or desk.) An included 9V/600 mA adaptor provides power.

Delay Away

The 80 factory presets cover a broad sonic spectrum. (My favorites include patch 34, a "kosmic" delay setting with quick repeats that feel like a long-tailed reverb.) It's fun to use these presets as launching pads for you own explorations—and the SDD-3000 can get way out. Kosmic delay with sine-wave modulation and wet mix settings has an expansive, crystalline chime that evokes Superman's Fortress of Solitude. But switch to a square wave and reduce the feedback/balance, and you get a '90s-sounding British gated reverb effect.

Some of the pedal's least glamorous functions are its most effective ones. For instance, when I switched to a Les Paul, I used the input level knob to control signal clipping (indicated by the headroom meter). If you regularly switch guitars mid-performance, the input level knob can be invaluable for keeping your echoes clean. That said, playing at near-clipping levels adds nice saturation that can color your repeats in cool ways.

The SDD-3000's attributes are too numerous to list here, but a few merit special mention: The stereo delay sounds are beautiful and expansive, especially when using percussive delays. And of course, the new SDD-3000 excels at replicating the classic SDD-3000 delay voice.

The Verdict

U2 fanatics will love the new SDD-3000. But it should also appeal to experimentally minded players eager to explore the extreme ends of the pedal's capabilities. There are seemingly limitless configurations for post-rock and ambient environments, and an effective control set with which to tailor them. What's more, it's relatively easy to use and navigate live. The $399 price tag is steep at first glance, but this is a highly capable delay that can take on many, many personalities. If your echo tastes extend beyond the ordinary, you'll find the SDD-3000 an intriguing option—and perhaps a bargain, given how many delays it might replace.

RATINGS

PROS Hugely versatile. Vast storage. Stereo capability. Authentic SDD-3000 sounds.

CONS Expensive. Going deep involves a learning curve.

Tones	
Ease of Use	
Build/Design	
Value	

$399 street
korg.com

CLICK HERE TO WATCH this pedal at premierguitar.com/oct2015

Quilter™

Performance Amplification

Gino Matteo has toured the globe numerous times with Quilter amps

his thoughts?

GET A HEAD WITH QUILTER

"Quilter has solved every single problem I ever had with guitar amplification."

- Gino Matteo

THE QUILTER 101 MINI HEAD

- 2 pounds
- 50 watts (100 watts max)
- Packed with tonal options

www.quilterlabs.com

RED PANDA
Raster

BY JORDAN WAGNER

In some respects, Red Panda's Raster pitch-shifting digital delay evolves from modulating analog delay units like the Electro-Harmonix Deluxe Memory Man, which added chorus or vibrato to its delay repeats. The Raster, however, combines a digital delay with a highly tunable pitch shifter that delivers sonic mayhem *way* beyond what the Memory Man provided. The results veer from subtle to cacophonous, from gentle chorusing and throbbing repeats to synth-like tones and all-out self-oscillating madness.

Raster Blaster

You don't *have* to get tricky with the Raster—it sounds great with simple echoes. Using a Gibson Les Paul, a Soldano Lucky 13 half stack, and the Raster sans shift mode, repeats were clear, but with a slightly lo-fi decay in the highs. The effect is clearer than on a Memory Man, though players who seek the clarity of, say, a Boss DD-6 may want to look elsewhere.

Long delays become flurries of repeated arpeggios that sounded like some alien organ.

Portrait of a Serial Shifter

The Raster's maximum delay time is 750 milliseconds, which should be plenty for most players. There are controls for delay time, feedback, and wet/dry blend. The feedback control unleashes infinite repeats as it approaches the 3 o'clock mark and distorts them at higher levels.

The feedback mode toggle selects between reverse delay, continuously shifted repeats, or a cool "single-shift" mode in which only the first repeat is pitch-shifted. The top-left knob (or an optional expression pedal) controls the pitch shift amount. The rightmost 3-way shift-mode toggle transposes pitches by ±12 semitones, tunes them up a minor third or down a fourth, or shifts the phase, introducing near-flange-like textures. The shift mode is also footswitchable, so you can change modes without having to reach down. A 9V adapter powers the pedal.

The real fun starts when you activate shift mode. It would take pages to describe the possible textures—at times the Raster has the chaotic personality of an old synth. One of my favorite settings is feedback mode set to continuous repeats, the shift knob at 5 o'clock, and transpose mode on. Long delays become flurries of repeated arpeggios that sounded like some alien organ. The shift knob lets me to "tune" the arpeggios to the root note of the melody I'm playing, making the eerie effect relatively musical and controlled. Shifts generally sound smooth and accurate, though higher-pitched repeats have a squeaky quality that sometimes gets a little harsh.

My favorite transpose-mode setting is delay knob to 10 o'clock for closely spaced arpeggio repeats, with the blend control at unity volume. When I play palm-muted notes on a low string, the repeats cavort and gyrate in a strange, evil rhythm. It's an intense and metallic-sounding effect—not for the meek, or anyone who can't stand processed-sounding pitch shifts. Metallic warts aside, I've never heard anything quite like it, and the available control blew me away. It's a mesmerizing effect.

The Verdict

Red Panda's Raster is an excellent digital delay for both conventional echoes and radical noise making. It doesn't chase the warmth of analog echoes (though it possesses warm qualities at certain settings). Most interesting is the way it embraces the darkly pulsating side of digital, metallic aftertaste and all. Those eerie pitch shifts alone are worth the price of admission. For players seeking a sound-effect secret weapon, the Raster delivers the otherworldly goods by the bundle.

RATINGS

PROS A smorgasbord of wild pitch-shift effects. Lots of control. Sounds warmer than many digital delays.

CONS High-pitched transpositions can sound harsh.

Tones	
Ease of Use	
Build/Design	
Value	

$249 street
redpandalab.com

CLICK HERE TO HEAR this pedal at premierguitar.com/oct2015

Blueridge Guitars...More *Bang* for the Buck!

When it's your instrument that's holding you back, it's time for a change. We invite you to stop by your local Blueridge Dealer and have an intimate conversation with the guitar that will bring out the best in you.

The secret of tone lies in the details of design, selection of materials and the skilled hand of the craftsman.

The result is more *bang*... period!

BR-160 Dreadnaught

To learn more about Saga's Blueridge Guitars, visit ***www.sagamusic.com/PG***

Blueridge

The Quality and Value Leader!

Blueridge BR-160 Guitar

- Select, aged, solid Sitka spruce top with traditional herringbone purfling for tone and beauty
- Expertly handcarved top braces in authentic, pre-war, forward-X position
- Select, solid East Indian rosewood back and sides for deep, rich tone
- Carved, low profile, solid mahogany neck and dovetail neck joint for strength and stability

Saga Music

Saga Musical Instruments
P.O. Box 2841 • So. San Francisco, California
Connect with us on

EPIGAZE
Monoceros

BY DAVID VON BADER

If you've been paying any attention to the state of the stompbox universe, you're probably aware that we're in the midst of a delay pedal renaissance. Advancing DSP and the elevated quality of discrete components has spawned some wild and beautiful-sounding new echo devices.

The Monoceros 838 Echo from Epigaze Audio uses digital power to achieve cool vintage-styled delay effects—and more demented ends. With its momentary oscillation switch, you can move from tasteful to psychotic in a flash. This makes the Monocereos a delightful companion for texturalists prone to extreme sonic mood swings.

A well-timed grab of the supernova switch during lead passages summoned a tornado of oscillation that added drama and power.

Explosions in the Box

In most respects, the Monoceros 838 is a no-frills echo. The enclosure houses a circuit built around the ubiquitous PT2399 chip. The pedal has 10-580 ms of available delay time and features typical delay controls: time, sensitivity (mix), and repeat. Oddly, two of the three knobs—time and sensitivity—increase values with counterclockwise turns. This takes some getting used to and makes adjustments on the fly tough at first, especially in the heat of a performance. A bright switch adds sonic flexibility—it's useful for making short delay settings pop in a mix.

Weapon of Mass Oscillation

The Monoceros 838's star attraction is its "supernova" function, which spirals your echoes into glorious oscillation at the tap of a soft-touch momentary footswitch. Regardless of where the pedal's time knob is set, the oscillating signal comes on loudly and quickly. It's particularly lethal when paired with big fuzz sounds and/or octave-down effects.

Epigaze Audio chose not to tamper too much with the PT2399 chip's innately clean, bright sound—they use little filtering to mimic analog warmth, though that's not necessarily a bad thing. Played with a humbucker-equipped Carvin Star through an early '70s 100-watt Marshall Super Lead full stack at high volume, the 838 melded beautifully with the amp's distortion, generating spaced-out shoegaze soundscapes and expansive post-rock swirl that would put a smile on the face of anyone with a taste for Sonic Youth's or My Bloody Valentine's amorphous walls of sound. A well-timed stomp on the supernova switch during lead passages summoned an explosive tornado of oscillation that added drama and power, but which dissipated quickly enough to be controllable. And with the right mix settings, the supernova function can create an undercurrent of oscillation rather than an in-your-face death-ray blast.

The Verdict

If you're looking for thousands of preset voices, endless tone-shaping flexibility, or an exceptionally warm analog tone, the Monoceros 838 might not be right for you. But if you love the thrill of blasting audiences with massive self-oscillation detonations, the supernova function is potentially priceless. Noise-mongers, rockers, shoegazers, and psych-heads with a taste for the skronk—take note! This beast might be exactly the delay you need. PG

RATINGS

PROS Fun self-oscillating supernova function. Bright switch adds versatility.

CONS Large footprint. Counterintuitive knob rotation. Pricy.

Tones	4.5
Ease of Use	4.5
Build/Design	4.5
Value	4.5

$225 street
epigazeaudio.bigcartel.com

CLICK HERE TO HEAR this pedal at premierguitar.com/oct2015

FULL RICH TONE. FULL SELECTION.

Guitars, amps and accessories for every style from beginner to pro. Fully tuned, fully stocked, we won't be satisfied until you are.

FULL COMPASS

Call 800-356-5844
Shop fullcompass.com

Pro Audio • Video • Lighting • Musical Instruments

Top Brands Including: GRETSCH · MESA ENGINEERING · VOX · Marshall AMPLIFICATION · Ibanez · Fender · schecter · Martin & Co EST. 1833

DYNAMICS THAT INSPIRE

DYNAMICALLY RESPONSIVE FUZZ AND DELAY

AVAILABLE AT SELECT DEALERS AND GREERAMPS.COM NOW!

PG PREMIERGuitar PREMIER GEAR

EARTHQUAKER DEVICES
Levitation

BY CHARLES SAUFLEY

It's never easy to make digital reverb sound cool. A clever pedal builder will find ways to give it color and character, and a really crafty one will coax just enough spring- or plate-reverb-like shading and digitally derived sweetener to appease all but the most hardened analog fascists. The latter trick is the essence of EarthQuaker Devices' Levitation Reverb, an expressive, vibrant, and super-dimensional digital box that can stand in convincingly for spring and plate units *and* generate a light year's worth of lovely textures outside analog constraints.

Echoes from a Ghost

The Levitation circuit is a close cousin of EarthQuaker's very spring-reverb-like Ghost Echo, though the Levitation's functionality differs significantly. Where the Ghost Echo had an attack function (which added clarity to pick attack) and a dwell knob, the Levitation replaces them with a reverb-length toggle and decay, atmosphere, and tone controls. The last of these is a low-cut filter at the front end of the reverb circuit. At its full counterclockwise setting, it eliminates most of the low end hitting the reverb circuit. As you rotate it clockwise, you re-introduce bass frequencies. The atmosphere control, meanwhile, takes high-end content from the reverberated signal and feeds it back through the circuit to create a singing, regenerative harmonic effect.

The heart of the Levitation is an Accutronics BTDR-3H Digi-Log chip, which is essentially three PT2399 chips—one of which is modulated to simulate the electromechanical irregularities of spring and plate reverbs. It's a great foundation for a digital reverb, and in the Levitation it helps generate tones from subdued to deeply subterranean, and snappy to interstellar.

Phantom Space Surfer

The Levitation's short reverb settings move from just-barely-there, small-room ambience to more vivid and animated spring sounds. Does it pass the spring-reverb likeness test? Well, yes and no. It has a lot of the resonance and liveliness of a big Fender tank, but it's much smoother—lacking some of the dirt, electro-mechanical resonance, and artifacts you hear in tube-driven tanks. Does that sound cool? I'm a longtime Fender Tube Reverb user, and I loved the Levitation's smooth-but-twitching decays and the extra room they provide for exploring the atmosphere and tone controls, which you can use to dial in a little vintage patina. If you're hell-bent on a dead-on spring emulation, there are pedals out there dedicated to that mission. But the Levitation is arguably a more flexible platform from which you can explore spring-ish realms. Other cool short-reverb settings come with the reverb mix down low, where the Levitation works as a subtle tone-thickening agent without tinting guitar or amp tones too significantly.

The Levitation's long-reverb toggle settings emulate, to some extent, the properties of plate reverb—though they are not strictly plate-like by design. Instead they offer a very pretty compromise between classic plate textures and contemporary digital shimmer-verbs (though on the whole the pedal's voice tilts toward the former.) You can push long-reverb settings into very spacious regions, and judicious use of the atmosphere control adds trace elements of high-harmonic space dust that lend motion and glow to chord arpeggios and overdriven/boosted solos in particular. You have to be careful not to push the atmosphere control too hard if you're sensitive to digital's tendency toward hard-edged decays. These right angles in the fading echoes are not starkly prominent, but in treblier settings and with bright amplifiers they will show up.

The Verdict

A lot of digital reverbs try to compensate for digital's intrinsic shortcomings by being all things to all players. The Levitation doesn't bother with creating the most impossibly ambient echoes or the most immaculately spring-like reverb. Instead it provides a flexible, easy-to-navigate platform for very musical, tasteful, and authentically vintage-flavored 'verbs that sound virtually indistinguishable from their inspirations within a band mix. Even with my own predilections for Fender reverb tanks, I loved the Levitation's smooth echoes and bright-to-dusky vocal range in short-reverb mode. And while the long reverbs can reveal faint digital artifacts at extreme atmosphere, delay, and tone settings, they can also be sparkling and vibrant, thanks to the controls' range and sensitivity. If the Levitation is a pedal of compromises, they are smart ones—and they add up to a genuinely utilitarian and expressively varied effect.

RATINGS

PROS Wide range of delicious reverbs—from intimate to atmospheric. Easy-to-explore control set.

CONS Traces of digital artifacts in more atmospheric sounds.

Tones	♥♥♥♥♥
Ease of Use	♥♥♥♥½
Build/Design	♥♥♥♥½
Value	♥♥♥♥♡

$185 street
earthquakerdevices.com

CLICK HERE TO HEAR this pedal at premierguitar.com/oct2015

FROM THE MAKERS OF LIONHEART

IRONHEART

T-USB

IN TODAY'S DIGITAL SOUNDSCAPE GUITAR PLAYERS STILL WANT REAL TUBE TONE NOTHING ELSE SOUNDS AS GOOD

LANEY'S T-USB EQUIPPED PRODUCTS ARE THE SOLUTION - TUBE TONE WITH DIGITAL CONNECTIVITY

THE IRT-STUDIO DELIVERS TRUE IRONHEART GAIN, TONES AND FLEXIBILITY STRAIGHT INTO YOUR DAW

LANEY AMPLIFYING MUSICIAN'S DESIRES SINCE 1967 INNOVATION IS OUR HERITAGE

T-USB I/O SUPPLIES 2 DISCRETE CHANNELS OF AUDIO TO YOU DAW. CHANNEL 1 – DRY AND CHANNEL 2 – AMPED. COMPATIBLE WITH WINDOWS OR MAC

Laney
JUST PLAY IT

WWW.LANEY.CO.UK

MUSICAL DISTRIBUTORS GROUP
WWW.MUSICALDISTRIBUTORS.COM

KEELEY
DynaTrem

BY SHAWN HAMMOND

For a couple of decades now Robert Keeley's name has largely been synonymous with his great-sounding takes on the rare old Ross Compressor pedal, but in the last year Keeley has worked hard to change that: He's modified and downsized many previous designs, explored more eye-grabbing visuals, and released around 20 new pedals—many of which prove that he's as interested as newer pedal outfits in exploring unusual sounds. The DynaTrem is a perfect example of the latter. While its name and amp-grille graphics might convey a stomp aiming for classic-voiced, amp-style tremolo, the DynaTrem has loftier, weirder goals.

Delta, Delta, Sum

The "Dyna" part of the new Keeley's moniker isn't just some '70s-style way of saying "It sounds groovy, man." It's telling you that the effect responds to input dynamics by mapping either rate or depth to the volume of your playing. The DynaTrem serves up this dynamic responsiveness in two modes (selectable via a 3-way toggle) and via four knobs: depth, rate, shape/reverb, and level. The way this is communicated on the pedal's face may conjure fond memories/nightmares/cold sweats from past geometry, trigonometry, and/or calculus courses, depending on your tolerance for such horrors: All three mode labels use a Greek character—either Δ (Delta) or Σ (Sigma)—in an effort to succinctly communicate the chosen function's basic gist. Δ (which means "4" in math, according to Prof. Wikipedia) seems to refer to the four waveforms you can select using the shape knob in ΔD and ΔR modes. I'm no engineer, but I presume Σ_NT mode's "Σ" character (which means "sum") refers to how this mode sums rate and depth values, and/or the fact that here there's an added reverb effect. (In this mode, shape/reverb governs reverb level rather than selecting waveform.)

In ΔR mode, a louder signal increases the speed of the on/off volume vacillation, while ΔD mode gives you a deeper, more dramatic sound as the intensity of your signal increases. Selecting Σ_NT engages a "harmonic tremolo and reverb" function. This is the DynaTrem's only mode that doesn't track dynamics, and it aims for the unique sound of old Magnatone amp tremolo circuits, which modulated pitch to create a vibrato-like tremolo effect rather than true, volume-modulated tremolo.

All About Dynamics

Despite all the Greek symbols, getting cool sounds from the DynaTrem has nothing to do with mathematical ability and a lot to do with the art of evincing subtle tonal shades by mere attack variance. The more adept you are at exploring gradations between whisper quiet, moderate volume, and ham-fisted glory, the more fun you'll have with the ΔR and ΔD settings.

In many ways, the sonic results are as wonderfully simple as the DynaTrem's premise suggests: In ΔR mode and with my Teles and Jazzmaster-ish Eastwood baritone running into tube amps on the verge of breakup, I could go from a subtle lilting sound when I gently brushed the strings with my fingertips to increasingly undulating swells the harder I dug in with a pick. With a careful increase in playing intensity, it can be quite exhilarating— like a Leslie's rotary speaker accelerating to top speed. And when you hit a chord hard and let it sustain, you can get hypnotic, quasi synth-y sounds that seem to get zapped by a debilitating slow-mo' gun as they blast out to space.

Toggle to ΔD, and the depth knob sets how extreme your volume cut will be at full attack. Here, you can go from clear, quiet, nearly un-effected passages to beautifully cozy oscillations or disorienting, hyper-chopped sounds, depending on the selected waveform.

For a lot of players, Σ_NT mode will be the DynaTrem's main attraction: It doesn't require paying careful attention to playing dynamics, and it avails a nice approximation of the Maggie-trem flavor—gritty and hypnotic, with anything from mildly trippy to nauseatingly psychotic on tap.

The Verdict

The reasonably sized DynaTrem does things few current trem pedals can. The unit we got (serial no. 0084) didn't let you bypass input-volume tracking when you're not in the mood for Maggie, but DynaTrems with a serial no. greater than 0300 now avail traditional, non-dynamic triangle-wave trem sounds when shape/reverb is at minimum in ΔD and ΔR modes. Even if that weren't the case, the Keeley's Magnatone flavors alone are pretty damn compelling, and the two dynamics-tracking modes offer intriguing sonic possibilities you'd be hard-pressed to find anywhere else.

RATINGS

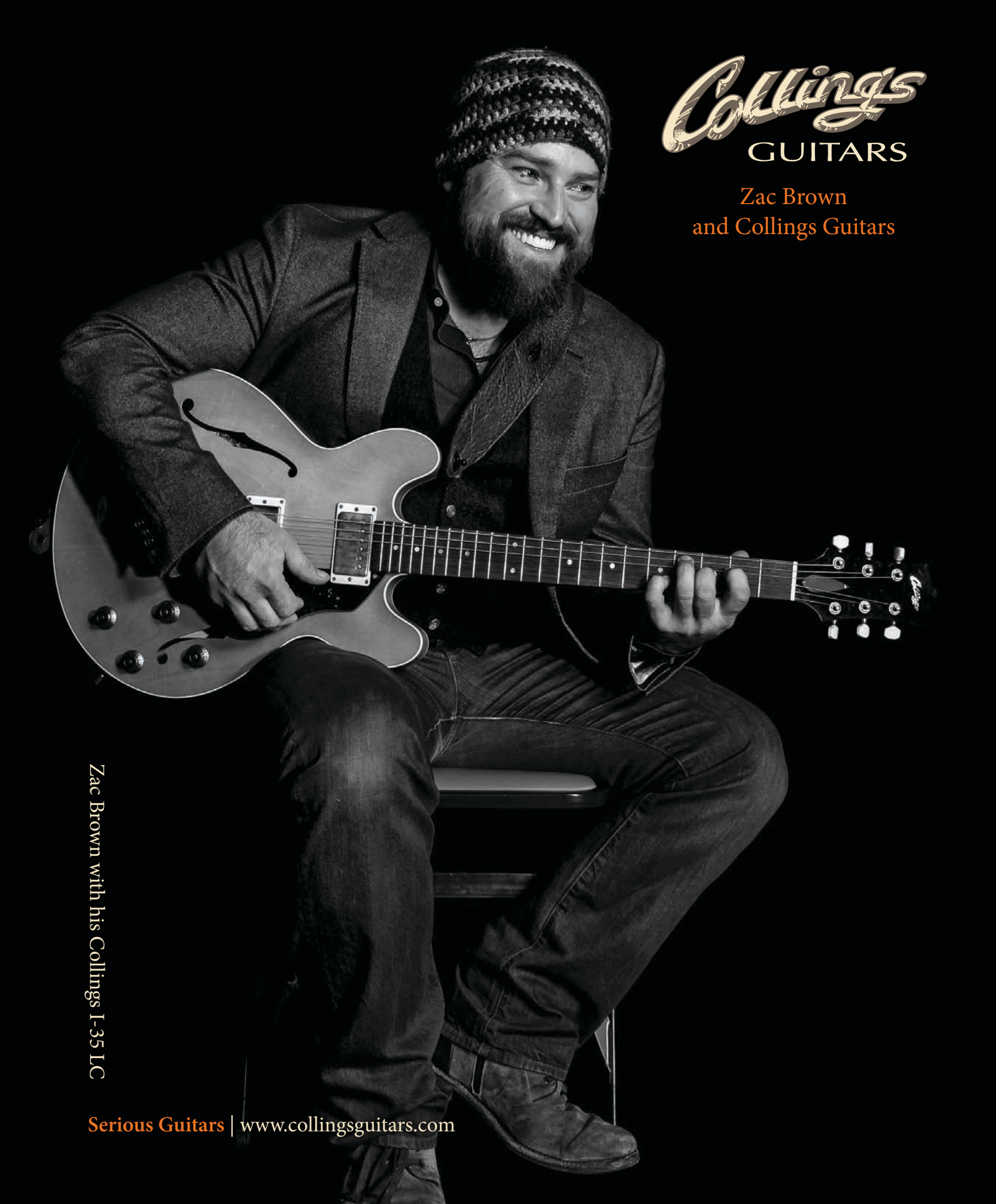
PROS Fascinating sound possibilities. Wonderful Magnatone-esque flavors. Level knob makes trippy settings audible in a mix.

CONS No standard trem mode. Stark volume contrasts can garble dynamic rate or depth changes. Lackluster reverb.

Tones	4.5
Ease of Use	3.5
Build/Design	4.5
Value	3.5

$199 street
robertkeeley.com

CLICK HERE TO HEAR this pedal at premierguitar.com/oct2015


Collings
GUITARS
Zac Brown
and Collings Guitars
Zac Brown with his Collings I-35 LC
Serious Guitars | www.collingsguitars.com

PREMIER GUITAR PREMIER GEAR

WAY HUGE Blue Hippo

BY CHARLES SAUFLEY

The new Way Huge Blue Hippo MKII is a bucket brigade-driven analog resurrection of the original Blue Hippo, but with an added vibrato function. It's bound to stoke fans of BBD choruses like the Boss CE-2 and Electro-Harmonix Polychorus, as well as Way Huge devotees who missed out on the original Blue Hippo.

Buckets of Blue

At a glance you could mistake the MKII for an original Blue Hippo. The new vibe toggle switch and the blinding/blinking LED are the most overt differences. Inside, the MKII circuit reveals the sense of order and design that's the norm for Tripp's new Way Huge pedals. The circuit board "floats" independently from the chassis-mounted input/output jacks, while the pots, toggle, and soft-relay footswitch are attached to the board. It's a secure-looking design. The input, output, and 9V DC jacks are top-mounted. You can also power the pedal with a 9V battery, and the easy-access hinged door makes changes fast and easy, even if the pedal is mounted on a board.

Spun and Twisted

There's great depth and complexity to the Blue Hippo—both in the harmonic color you hear at every point on the modulation curve, and in its subtle-to-submarine chorus textures. The sonic likeness to the original CE-2 is often uncanny. But there's EHX Polychorus color in the mix too, especially at deep settings.

The Blue Hippo's deep, warbly modulation is intoxicating. But I also love the subtler side of the pedal's persona. Slow speeds and mellow depth settings in the lower third of the control's range gave electric 12-string arpeggios extra body and a pretty touch of animation. The sonic sum can almost serve as a boost in a mix, highlighting critical high-mid content via a touch of extra motion. It's almost counterintuitive, given how modulation effects like tremolo can create a perceived volume drop. But it works, and in a hip way that you might not immediately perceive as chorusing.

The harmonic richness and nuanced modulation curves that make clean chorused tones sound so rich also excite high-mid fuzz content, adding presence rather than obscuring the signal.

The Hippo is also a great match for fuzz. Paired with a silicon Fuzz Face clone, it did a better job communicating the swirling, unhinged soulfulness of Hendrix's circa-'70 fuzz-plus-Uni-Vibe tones than many Uni-Vibe-inspired pedals I've played. The harmonic richness and nuanced modulation curves that make clean chorused tones sound so rich also excite high-mid fuzz content, adding presence rather than obscuring the signal.

The real bonus is vibe mode. While there may be more complex or versatile vibratos out there, it isn't easy finding a BBD-driven one at an affordable price. The MKII's vibe is beautifully deep. It can be disorienting or subtle, depending on your depth settings. It's got shadowy authority in the lows and low-mids that adds modulation weight you just don't get from many digital vibratos.

The Verdict

With its deep chorus tones, queasy vibrato sounds, and capacity for pretty and subtle variations of both, the Blue Hippo is a chorus for folks who don't especially like chorus. It has an expensive, sometimes sublime musical feel, minus the boutique price tag. Even for those who only occasionally use such modulation effects, it's a small investment for so much added color.

RATINGS

PROS Pretty, deep, and shimmering analog chorus effects with nuanced modulation curves. Hip vibrato circuit. Sounds killer with fuzz.

CONS None.

Tones	4½
Ease of Use	5
Build/Design	4½
Value	4½

$169 street
jimdunlop.com

CLICK HERE TO HEAR this pedal at premierguitar.com/oct2015

© 2015 Fender Musical Instruments Corporation. Gretsch®, Electromatic® and Bigsby® are registered trademarks of Fred W. Gretsch Enterprises, Ltd. and used herein under license. All rights reserved.

TC ELECTRONIC
Helix

BY CHARLES SAUFLEY

TC Electronic's TonePrint series is a killer way to expand sound and texture palettes on less-than-boutique budgets. Even at their most basic levels of functionality the pedals tend to be deep, capable, and brimming with options. But with the company's swelling library of downloadable TonePrint sounds, and the availability of the easy-to use TonePrint Editor, the sound potential of the line is beginning to border on limitless.

The digital Helix Phaser is one of the nicest TonePrint pedals we've heard—and we've really enjoyed most of them. With a very nice vintage-flavored mode, a second, resonant 'smooth' mode, a highly tunable control set and the already growing host of TonePrint options, it's a phaser that will spin the heads of more than a few one-knob phase devotees.

Swirled Lemon Custard

The Helix is hardly a complicated pedal, though the four knobs are very interactive and can be a little tricky to dial in on your way to the perfect phase confection. The speed and depth controls are self-explanatory and common to many phasers. The less-common mix control, which blends dry and effected signals, is key to many of the Helix's most understated applications. The feedback control emphasizes resonant peaks, which become more prominent as you turn the knob clockwise, feeding output back into the input section.

The 3-way toggle switches between a "vintage" setting, the TonePrint (you can store one TonePrint in the pedal at a time), and the more resonant and radical "smooth" setting. The USB port for downloading the TonePrint is on top of the pedal adjacent to the 9V DC jack (you can also use a 9V battery). TonePrints can also be "beamed" to the Helix via a Smartphone with the TonePrint app and your guitar pickups.

Mellow Yellow ...'Til It's Not

In vintage mode, you'll hear the most recognizable tones. The key to approximating the sounds of the two analog phaser standard bearers—the Electro-Harmonix Small Stone and MXR Phase 90—is to set the depth, mix, and feedback controls somewhere in the top third of their range. Vintage Small Stone tones lurked with the depth, mix and feedback all around 2 o'clock or a bit beyond. Vintage Phase 90-like tones take just a touch more mix and feedback. While the Helix gets very close to matching these classics, it lacks some of the watery shimmer and harmonic complexity through the modulation curve you'll hear from the analog units. The output is also comparatively bassy, and the dry signal can, at times, sound less than seamlessly summed with the phased signal.

The obvious advantage the Helix has over those one-knob classics is how readily you can re-shape the phase. Low mix levels—which are not an option on old one-knob analog units—work especially well with high depth and feedback levels to create subtle but distinctive textures with cool high harmonic peaks. More subdued feedback levels and slower speeds lend a very pretty swirl for strumming and arpeggiated chords. The lower mix levels also make the Helix much more friendly to fuzz and distortion. Though a phase-heavy mix is an excellent mate for gnarly fuzz (high feedback and speed levels add a devilishly weird and alien bit of bonus disorientation), low mix levels give fuzz a funky sense of motion without obscuring pick dynamics and nuance.

The Helix's "smooth" mode (definitely a metallic kind of smooth) adds flanger-like resonant peaks. It's not subtle—even at the mellowest mix levels, it's distinct and present—but it's the source of some of the coolest sounds. Setting all controls around the noon to 2 o'clock zone gives the phase a deep, resonant, and vowely character that works surprisingly well (and sounds insane) with hot, buzzing fuzztones.

The Verdict

The Helix is a lot of phaser for $129. You have to listen close to hear the Helix's few shortcomings: It's less harmonically complex than vintage analog units, and the sometimes disconnected wet/dry signal mix might show up under the microscope of a good studio microphone or in a spare, quiet musical arrangement. In 99 out of 100 live applications, however, these differences will be impossible to discern, and the trade-off in sound sculpting flexibility makes the Helix one of the finest phaser deals around.

RATINGS

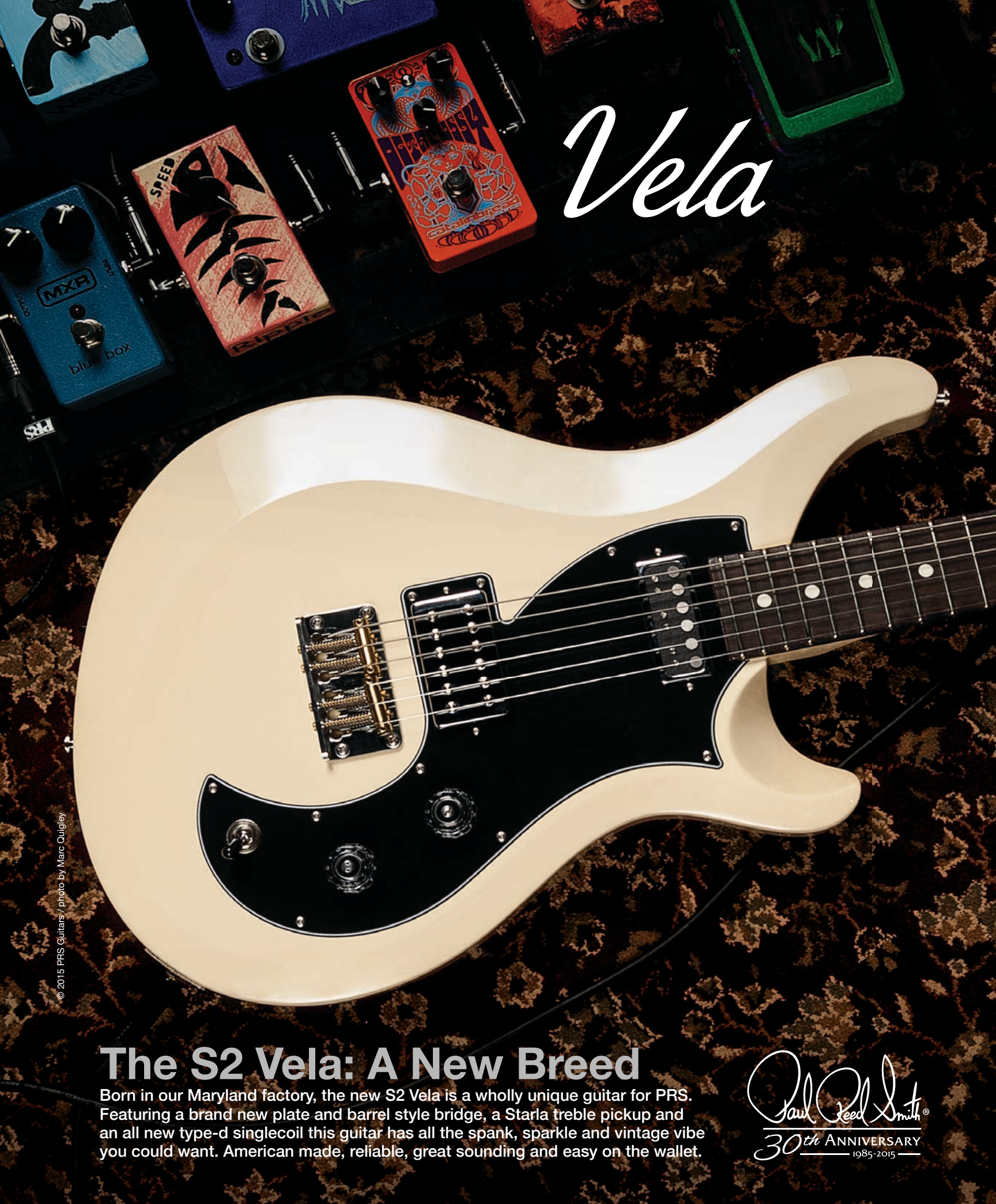
PROS Great tone-sculpting control. Rich phase tones for a digital unit. Sounds cool with fuzz. Tone Print functionality.

CONS Sum of dry and phased signal can sometimes sound less than seamless.

Tones	♥♥♥♥♡
Ease of Use	♥♥♥♥♡
Build/Design	♥♥♥♥◐
Value	♥♥♥♥◐

$129 street
tcelectronic.com

CLICK HERE TO HEAR this pedal at premierguitar.com/oct2015



© 2015 PRS Guitars / photo by Marc Quigley

The S2 Vela: A New Breed

Born in our Maryland factory, the new S2 Vela is a wholly unique guitar for PRS. Featuring a brand new plate and barrel style bridge, a Starla treble pickup and an all new type-d singlecoil this guitar has all the spank, sparkle and vintage vibe you could want. American made, reliable, great sounding and easy on the wallet.

Paul Reed Smith®
30th Anniversary
1985-2015

SOURCE AUDIO
Vertigo

BY JOE GORE

PREMIER GEAR

Do you prefer your pedals simple or complex? A few idiot-proof knobs, or a sprawling sound lab?

Source Audio's pedals have traditionally fallen into category B. But the company's new One Series bucks "for geeks only" stereotypes. Take Vertigo Tremolo: It's at least as powerful as past Source modulation pedals, yet it should please the idiot-proofers. Its hardware interface is no more complex than, say, your typical Boss box. But you can dive *way* deeper by connecting to Source's free Neuro app (for iOS and Android) and other editing tools.

Vertigo can do extraordinary tricks, but let's consider it first in idiot-proof mode. What happens when you plug in without cracking the manual or synching to other devices?

Simple Shakes

Vertigo lives in a B-sized enclosure with a extruded aluminum lid. The layout is simple: rate and depth controls, and a wave-shape pot to fade between square, sine, and sawtooth modulation. (That means smooth throb in the center position and alternate flavors of chop to either side.) There's also a volume control—an often-omitted essential. (You need about a +3dB boost when engaging a trem to avoid a perceived energy drop.) There's no battery option—you must plug in (adapter included).

One problem: the low-contrast labels are difficult to read in less-than-perfect lighting, let alone on dark stages.

Meanwhile, the toggle selects between the three classic amp tremolo modes: normal (blackface-style optical trem), harmonic (the phasy, two-tube brownface sound), and bias (that hypnotic Vox thing). And the simulations are *perfect*.

Totally Tubular

This isn't "a good digital approximation"—it sounds like frickin' amp trem. In an A/B test against a blackface Vibro Champ clone, the two sounds were identical—no way could I pass a blind-listening test. Likewise, Vertigo duplicates that elusive, lightly pitch-shifted brownface tone, somewhere between trem and phasing. (Rival simulations often sound stiff and inharmonious.) And bias mode nails that hypnotic Vox wobble, which can feel like drinking a bottle of cough syrup, or swimming in a pool of it.

This isn't "a nice digital approximation" —it sounds like frickin' amp trem.

The pot ranges and tapers are perfect, with values nicely distributed across the knob ranges. It's relatively easy to pinpoint your perfect setting. Vertigo also lets you store a single preset via a simple footswitch maneuver.

If this review ended here, Vertigo would still win our Premier Gear award. No need to geek out unless you want to. But if you do …

Deep-Dive Modulation

When you connect to a phone or tablet via the included cable, you can edit sounds onscreen via the Neuro app. The options are too extensive to list here, let alone cover in depth. Let's just say you get the degree of control you'd expect from a top-notch DAW plug-in. You can also download and share presets, select true-bypass or buffered mode, and specify the routing. (By default, Veritgo is "wired" for stereo-in/stereo-out.) You can also enter tap-tempo modulation rates. Speaking of which: Vertigo doesn't support hardware tap-tempo unless you add Source's proprietary tap-tempo switch. (Generic switches don't work.) It's nice and compact — just 2" x 2" x 1"—and will be released soon at an estimated cost of $40.

Another promised feature should let you dive even deeper: According to Source's Roger K. Smith, the company will soon release One Series Editor, their in-house authoring tool, which provides even more options. (For example, Neuro doesn't let you adjust the amount of pitch-shift applied in phasy harmonic mode, but the heavy artillery ion One Series Editor will.) With the addition of the Neuro Hub (a $99 "brain" that puts multiple Source Audio pedals on the same page) it's possible to save up to 128 presets and recall them with MIDI program change messages.

The Verdict

Vertigo is one of the best-sounding stompbox trems I've heard. You can cover the basics to superb effect, or plumb the depths via Source Audio's free apps. It's a steal at $149. Bravo!

RATINGS

PROS Superb opto, bias, and harmonic tremolo models. Easy to use. Vast programmability via free apps.

CONS Hard-to-read graphics. No battery option. Tap tempo requires $40 add-on.

Tones	♥♥♥♥♥
Ease of Use	♥♥♥♥♥
Build/Design	♥♥♥♥♡
Value	♥♥♥♥♥

$149 street
sourceaudio.net

CLICK HERE TO HEAR this pedal at premierguitar.com/oct2015

Godin
GUITARS
RETHINK
YOUR
TONE
SUMMIT
CLASSIC
made in canada
CONVERTIBLE • P90 • HB
GODINGUITARS.COM
© 2015 Godin Guitars - Godin is a registered trademark of Harmonilab Inc.

MOOG
MF Chorus

BY ALEX MAIOLO

Watch the video!

Late in his career, synthesis pioneer Bob Moog entered the stompbox market with a series of large format pedals cheekily named Moogerfoogers. Dr. Moog passed away in 2005, but Moog effects live on. Their current incarnations, dubbed Minifoogers, cram big-pedal functionality into standard-sized enclosures. And the newest Minifooger is the MF Chorus, an all-analog effect powered by bucket-brigade chips.

Expressively Yours

Fairly or not, chorus will always be associated with the '80s. So I grabbed my '81 Shergold Masquerader and plugged into a Simms-Watts 100 for maximum clean headroom. Inline were a Boss DS-1 (because, you know, the '80s) and the MF Chorus.

With Moog gear it's tempting to start with the crazy sounds, but I worked from mild to wild. Even in subtle applications this is a rich-sounding pedal. The chorus is a bit rounder and

I could make my guitar sound like heels clacking down a hospital corridor, or take it right down to a Doppler effect.

Simpler than It Sounds

The MF Chorus feels familiar: Its rate, depth, time, and feedback controls need little explanation. But the three-position mix mini-toggle is something special. Its first two positions change the chorus effect from classic and airy to thick and syrupy, while the third position calls up vibrato mode. The 1/4" output jack works in stereo when you connect a TRS splitter cable. All jacks are conveniently located on the back panel, and as on most Moog pedals, there's an expression pedal input jack. The power LED pulses in time with the modulation rate.

bolder than on a Roland JC amp (a gold-standard chorus circuit in my opinion). Flipping to the middle mix position lends a warbly, underwater feel reminiscent of an old Electro-Harmonix Polychorus. The switch's third position generates swooping, room-shaking vibrato. These tones can be even more intense, and they're especially awesome with an expressional pedal (not included) controlling the modulation rate.

Helmut Haas's theories of psychoacoustics tells us that sounds separated by more than 40 milliseconds are perceived as separate events—that is, a sound and its echo—so most choruses stay beneath that threshold. But the MF Chorus tops out at 70 ms, long enough to generates a cool slapback effect. This enables both deeper-than-usual chorusing and more disorienting sounds. Playing with the rate and feedback settings, I could make my guitar sound like heels clacking down a hospital corridor, or generate a Doppler effect. Moog calls this the "film projector effect." Is it useful? Not always, but it's a cool chorus variation that may well inspire entire songs. It also rewards unconventional, prepared-guitar approaches: Adding my DS-1 and plucking notes behind the bridge while shaking the vibrato bar generated fantastically atmospheric sounds. (Something tells me Bob Moog would be cool with this.)

The Verdict

Moog has packed much sonic potential into this box. Players looking for more traditionally mellow tones may prefer the simplicity and low cost of standard two-knob chorus pedal. But those hoping to expand their sonic horizons will enjoy both the mellow and maniacal sounds generated by this latest Minifooger.

RATINGS

PROS Not your grandfather's chorus pedal. Goes beyond typical sounds.

CONS May be an investment for a seldom-used effect. Analog circuitry means a little noise.

Tones	4.5
Ease of Use	4
Build/Design	4.5
Value	4

$189 street
moogmusic.com

CLICK HERE TO WATCH this pedal at premierguitar.com/oct2015

FIRE IT UP!

World Class Amp Modeling ▪ Studio Quality Effects ▪ Cabinet Impulse Loader ▪ Pro Audio Signal Path

brought to you by Atomic Amplifiers | POWERED BY STUDIO DEVIL

learn more @ atomicamps.com

The best live performance looper on the planet.

The Boomerang® III Phrase Sampler is the premiere performance looper with up to 4 simultaneous stereo loops! Musically intuitive, just like you, the Rang™ III not only makes you sound better, it makes you play better with 4 distinct Play Styles: Serial, Serial Master, Sync and Free.

With a host of on-board tricks like Stacking, Octave, Reverse, Stutter and Fade you'll never run out of ideas. Add a Side Car™ Controller for more access to all the cool functions without reprogramming and a Wholly Roller™ Volume/Expression pedal for the ultimate live looping rig.

Don't stop there, you can add the Boomerang® E-155 Chorus*Delay pedal with its wide range of gorgeous sounds to round out your effects chain.

Get your feet on the best live performance looper on the planet!

BOOMERANG®

Ask your local dealer to show you all the cool new Boomerang® products or visit us at: boomerangmusic.com

SEYMOUR DUNCAN
Shape Shifter

BY MATTHEW HOLLIMAN

Watch the video!

With versatile wave-shaping and rate-control options, Seymour Duncan's original Shape Shifter was a tremolo control freak's best pal. The new version retains the same functionality and controls as the original, but adds a stereo feature and a cool channel phase knob that modifies the synchronization between the two outputs in awesome ways. These additions make the new, more compact Shape Shifter a super-stuffed bag of tremolo tricks.

There are cheaper tremolo pedals out there, but few trems chop in as many shades as this chameleon.

Channeling Waves

You can select three basic wave shapes—sine, triangle, and square—via the wave knob. But you can also blend wave shapes to add a slightly irregular warble to the tremolo pulses. You can further alter the wave with the shape knob, which creates uniform wave shapes or asymmetric wave shapes with a longer rise than taper—or vice versa.

There are several ways to adjust tremolo rate: Via the speed knob (when the rate toggle is engaged) or by tapping out a tempo, which can further be modified with the ratio controls. In the ratio, setting you can create subdivisions (1:1, 2:1, 3:1 and 4:1) of whatever tempo you tap in. It's a cool way to dial in fast, but very precise tremolo pulses.

The stereo outputs add another layer of swirl, especially depending on how you adjust the new channel phase knob. At a fully counterclockwise setting, a two-amp, stereo output setup will be entirely in phase. As you turn clockwise, the output will gradually slip out of phase—all the way to a 180-degree shift, which induces sea-sick or stroboscopic effects depending on how you set the wave shape. A cool "hidden" feature is a volume boost that automatically kicks in as you increase depth settings—eliminating the need for a volume knob.

Split Personality

My test stereo rig consisted of a Fender Twin Reverb and a Hiwatt Custom 50. Setting the wave shape between sine and triangle comes very close to imitating the optical tremolo found in the Twin Reverb, and dialing the depth to around 2 o'clock yields a taste of Johnny Marr-inspired "How Soon Is Now?" choppiness. This setting is especially effective in stereo with a strongly out-of-phase position. At a full 180-degree setting the three-dimensional effect can be intense.

With a square wave selected and the channels in phase, stereo amps produce a sputtering, if huge, on/off effect. By turning the phase to 12 o'clock, the amps slip out of sync just enough that you can start to hear the nuances of chord melodies—even at extreme depth settings. Asymmetric wave shapes can add a cool analog irregularity, especially at high-depth settings. These extreme settings aren't always the most musical, but they highlight the Shape Shifter's ability to create effective, deep, and disorienting sci-fi textures.

To get more traditional tremolo sounds, simply dial up a triangle wave and roll back the depth. Ditching the stereo setup negates the phase control, but even in single-amp applications, the Shape Shifter sounds deep and rich, and depending on where you set the shape knob, the pedal delivers a cool trace of pitch shift. The harmonic richness of a Les Paul's humbuckers are especially effective for highlighting this dimensionality, which you can tastefully enhance with stronger depth settings.

The Verdict

There are cheaper tremolo pedals out there, but few trems chop in as many shades as this chameleon. The Shape Shifter can generate everything from Fender- to Vox-style trem textures, which will make it appealing to those whose amps lack a tremolo circuit. And if you're seeking more bizarre and unexpected colors, the Shape Shifter offers a ton of them too.

RATINGS

PROS Huge range of tremolo tones and shape-sculpting options. Stereo setup is gorgeous when phase shifting the channels. Tap tempo keeps it all on the rails.

CONS A tad expensive.

Tones	♥♥♥♥♡
Ease of Use	♥♥♥♥♡
Build/Design	♥♥♥♥◐
Value	♥♥♥♥♡

$229 street
seymourduncan.com

CLICK HERE TO WATCH this pedal at premierguitar.com/oct2015

Add some Cream to your tone

Vintage Alnico voice, more power than ever

For guitar players hooked on the richest boutique vintage tones, the new Celestion Cream combines the unmistakable sound of our legendary Alnico speakers with a maximum power handling of 90 watts. From high-gain, high volume stacks to low-wattage studio combos, experience crème de la tone.

90 WATTS

PURE ALNICO TONE

Find out more

celestion.com

CELESTION

SVISOUND
Ge Auto Wah

BY MATTHEW HOLLIMAN

The Ge Auto Wah is the newest pedal from the SviSound workbench. It's a true germanium wah filter that uses Soviet-era Russian transistors to deliver a touch sensitive, dynamic auto-wah that adds tons of texture without sounding heavy-handed.

Metal on Metal

Suited up in a funky collision of copper, brass, and steel, the Ge Auto Wah looks like something from a sci-fi western, or a lost prop from *Waterworld*. Inside, the hand-soldered circuit provides evidence of a *very* hands-on company. There's not much spare room in the pedal's interior, so a 9V adaptor is required—no battery option.

The depth knob pinpoints the variable sweep of the wah effect, while the "sens" knob sets the filter level. As on an old Mu-Tron, there's a range switch that determines the frequency emphasis. The up position focuses on the low-mids-to-high-mids range, while the down position emphasizes the mid-to-high spectrum. The pedal is also available with two extra jacks, which let you insert another effect—a fuzz, say—in the auto-wah's loop.

A Polite Filter Effect

The Ge Auto Wah can do door-slamming, on/off filtering if that's what you need. But what often makes it a joy is its relative subtlety. It rewards finesse and is exceptionally sensitive to picking dynamics. It can display a vowel-like softness that makes the filtering feel forgiving—and usable in many contexts.

The pedal is highly sensitive to pickup type. The spiky output from the single-coils of a Fender Jaguar demand careful sens control tweaking. A Gibson Les Paul was easier to dial in. But once you get the Ge pegged for your setup, it has a vocal quality that's less like the heavy, almost caricatured guffaw that Jerry Garcia was fond of, and more like subtle sweeps from a nice wah pedal.

Low depth settings evoke the tough, guttural cough of a cocked wah.

Sensitive Settings

Careful use of the depth and range controls is critical. Thumping away on the sixth string at the first few frets at low settings can result in loss of mid and treble detail, which may mean you have to boost the signal elsewhere. That said, these lower reaches can sound insanely cool when you set the range toggle as wide as possible. That way, low depth settings evoke the tough, guttural cough of a cocked wah. I especially enjoyed the range toggle in its wider setting. With the depth just shy of noon (a sweet spot for single-coils) I got a great low-end squawk and great pick sensitivity. It also gave high-end content a nice glimmer.

If you use dirt with the Ge Auto Wah (an experiment I heartily recommend), placement is key. I found that fuzz placed before the Ge Auto Wah is a real output killer. But if you place your fuzz after the filter, you can summon touches of Hendrix's drawling, fast-and-funky wah sweep, as well as colorful and muscular filter tones that are killer for percussive leads. Curiously, I had the best results with high-sustain silicon-transistor dirt boxes like a "ram's head" Muff clone, which seemed to better drive the whole frequency spectrum through the filter sweep.

The Verdict

The Ge Auto Wah could be a revelation for players who have only experienced inexpensive auto wahs. It excels at adding texture and harmonic color—it's definitely not the sort of dull filter effect reminiscent of throwing a blanket over your amp and lifting it off again. It's super responsive to picking dynamics and adds soft contours—when you want them—to an effect that isn't always easy to master.

RATINGS

PROS Cool textures over rich filter tones.

CONS Setup can be tricky if moving from guitar to guitar. No battery option.

Tones	
Ease of Use	
Build/Design	
Value	

$165 street
svisound.com

CLICK HERE TO HEAR this pedal at premierguitar.com/oct2015

The PlexiTone has a crunch channel, a high gain channel and a third channel of with up to 20db of clean boost. It can go from subtle overdrive to absolutely meltdown which can be pre-set in three stages.

Check it out and see why top artists world wide choose to play Carl Martin products

www.carlmartin.com

BOSS SY-300

BY MATTHEW HOLLIMAN

Guitar synthesis has come a long way. Players are no longer doomed to invasive drilling for MIDI ports, special pickups, or fret wiring. These days one of the coolest guitar synth alternatives are stompboxes, and the new BOSS SY-300, a deep and capable digital guitar synth packed with LFOs, filters, effects, patches, and routing, is an intriguing and powerful option.

Synthesis Sans Ivories

Out of the box, the SY-300 is configured with 70 permanent presets and 99 slots for user patches. To create one, you simply press the synth button to edit a given patch using the LCD screen as your navigation window. While in edit mode, the four knobs beneath the screen are used to adjust parameters within your internal signal chain. Here you can stack LFOs, add effects such as chorus, flange and delay, and adjust their individual settings and where they appear in the signal chain. Effects may be applied globally, or to a specific LFO or effect. Should you want to use your own stomp boxes to effect the internal chain, there are send/return ports on the crown of the box. MIDI in and out/thru jacks are included, as well as a USB port. This allows you to use the Boss Tone Studio, a GUI for precise tweaking on your computer. The SY-300 can also hook up to the Boss Tone Central, a virtual library of downloadable presets. Altogether the SY-300 is an impressively flexible and editable package.

All in the Fingers

Many of the SY-300 presets are both intuitive and immediately usable. Some require a little more attention to detail—especially time-based effects. For example, P14 has a programmable 16-step sequencer built in and I had to sift through the Synth/FX edit mode to get the patch tempo up to speed. All of these controls take a little time to get used to. Thankfully, the controls are well laid out and the navigation is logical.

While digital guitar synthesis can be cold and sterile, the SY-300 is highly reactive to playing style and guitar choice. Each pickup (or blend) retains its inherent characteristics. The use of subtractive synthesis also means that you can run a slide the length of the string, without annoying glitchy, artifacts.

While a little background with synths and LFOs makes the SY-300 feel more familiar, Boss made this guitar synth *very* user friendly. And you can formulate odd combinations with ease. For instance, I was working with preset P03 "Fat Saw Brass", but wanted to try the 1st Oscillator from P12 "Lord Purple" in the second Oscillator position. By hitting the blender button and using the second knob beneath the LCD to cycle through the preset list, I located the "Lord Purple" oscillator. With the push of a button, my guitar tone was imbued with a pulse-width modulation that added a dirty, woozy warble that, yep—evoked Jon Lord's fat Deep Purple Hammond tones. The blender feature can also be used to produce new patches. Pushing down on the select knob will randomly generate a signal chain every 5 seconds. If you find one you like, you press the select knob again (or turn CC to scroll back further in the randomizer) to stop. From there, you can tweak or write the new patch to a user slot. It's interactive, easy and a wonderful creative tool.

The Verdict

These voices and sounds are a mere fraction of what the SY-300 can do. And these relatively vast capabilities make the $699 street price—which is neither chump change nor an easy investment for a casual guitar synth enthusiast—a little easier to swallow. The SY-300 is delightfully intuitive and interactive. Subtractive synthesis means it doesn't glitch out when you play bends and harmonics, and, it actually reacts to the pressure of your playing. On top of giving you textures for otherworldly leads and fat rhythms, the SY-300 can also stand-in for a keyboardist. And while it's doesn't have the fat warmth, of an analog synth, it feels exceptionally organic for a digital synth. Best of all, the SY-300 makes it easy to create unusual and useful sounds, and that makes it a very powerful creative partner.

RATINGS

PROS User friendly. Great tracking and sensitivity. Organic sounds for a digital guitar synth.

CONS Expensive.

Tones	4.5
Ease of Use	5
Build/Design	4.5
Value	4.5

$699 street
bossus.com

CLICK HERE TO HEAR this pedal at premierguitar.com/oct2015

Presenting the new Ltd Ed Björn Gelotte Signature Les Paul® Custom Outfit featuring...

- Active EMG-81/85 MetalWorks® Humbuckers
- Custom Rounded "C" Shape Neck Profile with Ebony Fingerboard
- LockTone™ "Nashville" Style Tune-o-matic Bridge
- Includes Custom Hard Case, and Signed Certificate

www.inflames.com
www.epiphone.com

Epiphone®
performance is our passion
A Part of Gibson Brands

® 2015 The Epiphone Company, All Rights Reserved, Photo: Scott Uchida

ELECTRO-HARMONIX
Nano Pog

BY JOE GORE

Watch the video!

The latest addition to EHX's POG family is basically a Micro POG in a smaller B-sized enclosure. Both pedals are stripped-down spinoffs of EHX's flagship POG2, which provides harmonizations one and two octaves above and below the direct signal. Nano offers simple octave-up and octave-down sounds and omits the POG2's slow-attack control, low-pass filter, detuning, and preset-storage ability. You can power the pedal via 9V battery or the included AC adapter.

Most players won't need to refine their touch, or even concentrate—these octave effects simply *work*.

The Fine Line Between Stupid and Clever

Nano may be a dumbed-down POG2, but it's been dumbed down brilliantly. The only controls are level pots for the dry, octave-up, and octave-down signals. You can't filter or otherwise modify the transposed tones, but the default settings tend to yield fine results. You can send mixed tones to your amp in mono, or use the independent dry/direct outs to route octave sounds to a second amp or straight to the board.

Like all POGs, Nano is digital. Its octave sounds have a touch of latency, but when you mix in dry signal, the note attack renders delays nearly imperceptible. Skilled players could make even 100 percent wet sounds seem instantaneous by playing slightly ahead of the beat—but you needn't be a refined player to get great results here.

All Levels Welcome

Nano's tracking is remarkably forgiving. It's polyphonic, so if you inadvertently strike an adjacent string while playing a single-note melody, you won't get a glitchy hiccup as on many pitch-tracking effects. Most players won't need to refine their touch, or even concentrate—these octave effects simply *work*. I'd be surprised if a beginning player couldn't immediately create cool sounds.

Ups and Downs

These preset sounds work well in many applications. Bass transpositions are deep and fat, with a percussive attack suggesting a bass played pickstyle. If, say, you're in a guitar-and-drum duo, you can definitely shake floors with low frequencies, given proper amplification.

Octave-up transpositions are less organic-sounding—they have the bleating, grainy quality you expect from inexpensive, low-res processors. Marketing claims notwithstanding, blended tones sound nothing like a 12-string guitar, though they might pass muster for tossed-off 12-string parts on a casual cover-band gig.

But it's probably misguided to focus on how well Nano fakes other instruments when it does so much cool stuff in its own right.

Hail the Noise Gods!

No surprise that POGs have became favorites among players who dig raucous, noisy sounds. They may not provide realistic 12-string tones, but they excel at mimicking volcanoes, earthquakes, and general Götterdämmerung. Run Nano into a good fuzz and just stand back! I even connected a fuzz *before* Nano, and the darn thing still tracked—and sounded—great. Fancy a bit of the old ultra-violence? Step this way.

The Verdict

Nano POG is a simple yet powerful octaver that hits the sweet spot on all fronts: range vs. ease of use, fidelity vs. funkiness, and price vs. performance. It's compelling enough to excite experienced sound-sculptors, yet simple enough for beginners.

RATINGS

PROS Near-foolproof octave effects. Excellent polyphonic tracking.

CONS Octave-up tones sound inorganic.

Tones	♥♥♥♥♡
Ease of Use	♥♥♥♥♡
Build/Design	♥♥♥♥♥
Value	♥♥♥♥♡

$202 street
ehx.com

CLICK HERE TO WATCH this pedal at premierguitar.com/oct2015

WHAT THE <*BLEEP*> IS A V-SWITCH?

Velocity-sensing FX pedals from MC Systems let you select your sound based on how hard you stomp. Get four sonic variations from a single group of settings, then stomp your way to the perfect one—like this:

Stomp
1 Tight Slapback: REGEN + TIME
2 Solo Echo: REGEN + ALT-TIME

Stomp Harder
3 Spring Reverb: V-REGEN + TIME
4 Deep Repeats: V-REGEN + ALT-TIME

V-Switch-equipped models offer a range of FX, from classic to modern boutique. $149.99 ea. Learn more at www.MCSystemsMusic.com.

MC SYSTEMS V-SWITCH GUITAR FX. STOMP DIFFERENT. SOUND DIFFERENT.

Distributed in North America by pro audio
www.mvproaudio.com

XITS X10 | modern classic

The result of unceasing passion for the perfect combo amplifier. Sweet, articulate cleans, three dimensional overdrive and everything inbetween.

Pure Magic.
Pure XITS.

www.xits-sound.com

Strings • Pickups • Effects

ELECTRIC LIGHT 10-46

ThrōBak

ELGIN SERIES Vintage Choice™

PURE NICKEL ROUND CORE

Made in U.S.A.

Buy Direct at ThroBak.com

ISP TECHNOLOGIES
Beta Bass

BY STEVE COOK

Watch the video!

By relying on DIs as the primary component of their rigs, more and more bassists are making use of the house PA and monitor systems rather than carting around loads of gear. Enter ISP Technologies and their foray into the bass DI pedal race. Their Beta Bass rackmount preamp has already won favor with its world-class compressor, transparent EQ, and Decimator noise gate. And now, the folks at ISP have designed the new Beta Bass preamp pedal to give players all the features of the rackmount version in a pedal-sized package, but with some added tricks.

Beta Boom

The Beta Bass has a cobalt finish, a trio of footswitches, and a whopping 14 control knobs. Much like a mixing console, the controls seem daunting until you look at them in groups, rather than as a whole. The footprint is only about the size of two tuner pedals combined, but electrical real estate does come at a premium with the massive wall-wart power supply. The upside is that the pedal converts the 9V adaptor power to a +/- 15V DC supply, allowing for a ton of headroom.

The top row of controls is designated for the clean preamp. After the gain control on the far left, there's a 4-band EQ that includes dual mid dials and two frequency sweep controls, which work together to provide semi-parametric tone shaping. The frequency range for the mids is a super-wide 60 Hz to 6 kHz.

The second row of knobs consists of five different sections. The first is the compression threshold, a simple 1-knob design that also adjusts the ratio. Next is the exciter mix, which allows you to blend in as much of the phase-manipulation exciter as you like. The exciter EQ is its companion and it adjusts the exciter's mids and highs. The Decimator dial is next, which controls ISP's patented noise-reduction technology. Following is the distortion section with gain and mix controls, and finally, a master level dial. The three footswitches control on/off for compression, the exciter, and the distortion, respectively.

Beta Test

I set up the Beta Bass between a '78 Fender P and an Eden CXC210 combo. The clean section kept the bass sounding true to itself when set flat, and I found that small changes went a long way, especially with the bass and treble dials. The Beta Bass doesn't color the tone, but instead merely helps it get where it needs to be. I was already impressed with the EQ's sounds before moving on to the second rung, which really brought the whole DI to life.

The compression section is smooth and even, and super-squashing doesn't happen until the circuit is pushed to around 75 percent. The exciter controls add a certain harmonic sweetness to the overall tone. The key to this feature is dialing in your ideal tone with the EQ section, and then activating the exciter. The shimmer kicks in and adds a new clarity to an already great sound. Slappers will love it for the pop, fingerstyle players will dig the nuances of the tone, and the harmonics simply gleam.

The distortion section is a powerful part of the Beta Bass, and with the mix control, you can get as nasty as you'd like or just add a pinch of dirt to the clean signal. The real treat is using the distortion and exciter together. The exciter's harmonic sweetness takes the distortion to an edgier place and gives you even more tonal options and colors to play with.

The Verdict

The Beta Bass has a *lot* to offer. Yes, plenty of companies add a distortion circuit to their wares to cater to certain players, but they often fall short on tone. Not here: The distortion is super solid, and I dig the dedicated footswitch. If I were to have any beefs, it would be that the treble EQ control can get a little too crisp and potentially make things noisy. All said, ISP has rolled out a powerful tool for bassists that streets for well under $500, yet sounds like a preamp that costs twice that much. PG

RATINGS

PROS Excellent features, powerful EQ section, great distortion.

CONS The big wall-wart power supply is a space eater.

Tones	4.5
Ease of Use	4
Build/Design	4
Value	4.5

$416 street
isptechnologies.com

CLICK HERE TO WATCH this pedal at premierguitar.com/oct2015

Henriksen

HenriksenAmplifiers.com • 303-674-0842

BUD LIBS

World's Smallest, Biggest Amp

1. Can I _____ with it? 2. Is it _____ enough?
verb adjective

3. Does it have _____?
noun

Answer: 1.Yes, 2.Yes, 3.Yes

Introducing The Bud, from Henriksen Amplifiers.

This is the the smallest, TRULY GIGABLE guitar amplifier on the market. At 9"x9"x9", 17 pounds and 120 watts of analog power, you won't believe the volume and tone coming from either your electric or acoustic guitar.

With a feature set that offers the versatility to cover almost any kind of gig, this is a MUST HAVE piece of gear for the working musician.

Loni Specter Productions

11th Annual LA Amp Show

AMP SHOW

October 3&4 2015

10am-6pm, $20 door

Dozens of Private Demo Rooms!

"Tone Wizards" panel, Amps, Guitars, Effects, Prizes!

Airtel Plaza Hotel, 7277 Valjean Avenue, Van Nuys, CA 91406

MUSIC CONNECTION

V-Pick

SIT Strings

Win this incredible Kemper Profiling Amp!

AMPSHOW.COM

info@AmpShow.com

FRET-King by Trev Wilkinson

Black Label Esprit V

Your next guitar is here...

Familiar, but different to anything you will have seen, heard or played before, the Esprit V's distinctive reversed six-a-side in-line peghead, striking asymmetric body, chrome covered pickups and signature oversized pickguard add up to a statement of style with individuality and attitude to spare.

Visit www.Fret-King.com or email us at info@fretking-vintage.com
Available online now, at AmericanMusical.com, Zzounds.com, and at many fine Music Stores throughout the US!

FRET-King by Trev Wilkinson .com

PREMIER GEAR

SEYMOUR DUNCAN
Studio Bass Compressor

BY BRIAN FOX

For many bassists, compression effects often fly below the radar. When it comes to carving out valuable pedalboard real estate, compressors don't always make the cut. That's a bit odd, given how compression is probably the most important processor of all when it's time to track. But Seymour Duncan's Studio Bass Compressor makes a strong case for clearing a necessary space on your pedalboard.

While some bass-compressor stompboxes provide maximum control via such parameters as ratio, slope, and threshold, Duncan opts for a simpler approach.

Squeeze Box

Basically, there are a four compressor types: optical, variable mu, VCA (voltage-controlled amplifier), and FET (field-effect transistor). The Studio Bass is a VCA compressor, which puts it in the same universe as studio staples by the likes of Neve, SSL, and API.

The Studio Bass boasts a sturdy build, compact footprint, and elegant design. Top-mounted I/O and power jacks leave elbow room for neighboring pedals, and the flared black knobs are easy to access and read. The pedal's pots, switches, and jacks are all high-quality, and the package even comes with thin adhesive-foam strips for pedalboard mounting.

While some bass-compressor stompboxes provide maximum control via such parameters as ratio, slope, and threshold, Duncan opts for a simpler approach. Blend controls the wet/dry mix. Level sets the master output. Attack governs the compression speed, and compression controls the amount of squeeze. A 3-position switch lets specific uncompressed frequencies back into the compressed signal: Mid adds a slight midrange boost, F is flat, and low provides an extra bump on the bottom.

Fun Factor

I auditioned the Studio Bass between a Fender Jazz and a CEntrance AxePort Pro interface, recording the results into my DAW, Audacity. It was easy to get a wide range of compression effects by manipulating the attack and compression controls, from smooth, slow, and subtle to quick and squishy. The pedal tamed dynamic spikes while slapping, brought greater articulation to fingerstyle plucking, and lent a pleasing midrange punch to pickstyle playing. Dialing in a clean signal and working the blend knob harnessed the compressor's polishing power while maintaining the desired degree of punch. And if you dial compression all the way down, the Studio Bass works as a slick boost pedal, governed by the level knob and colored by the 3-way EQ toggle.

The Verdict

The Studio Bass Compressor performs its namesake process at a reasonable price while adding such useful functions as EQ presets and a potent clean boost. Players who might balk at more complicated compressor pedals will probably find the Studio Bass to be simple and fun. Whether you're new to compression or have used it for ages, consider kicking it with Studio Bass.

RATINGS

PROS Easy to use. Doubles as a clean boost. Effective EQ filters.

CONS Doesn't provide access to all compression parameters.

Tones	4½
Ease of Use	4½
Build/Design	4½
Value	5

$169 street
seymourduncan.com

CLICK HERE TO HEAR this pedal at premierguitar.com/oct2015

Guitar Center®

PLATINUM

THE GREATEST SELECTION OF THE FINEST GUITARS

GIBSON CUSTOM

1957 Les Paul Standard Reissue in Antique Gold VOS
(110181567)

1958 Les Paul Standard Reissue in Lemon Burst VOS
(110181765)

MARSHALL

Silver Jubilee 100W Tube Guitar Head
(110877677)

Silver Jubilee 4x12 Guitar Cabinet
(110877669)

FENDER® CUSTOM SHOP

Limited-Edition Golden '50s 1954 Heavy Relic Stratocaster® in Cimarron Red
(110878527)

Masterbuilt '60s Imperial Arc Stratocaster® in Black over Shoreline Gold by Dale Wilson
(110457876)

SEE THESE INSTRUMENTS AND MORE AT GCPLATINUM.COM

PREMIER GEAR

AMPEG SCR-DI

BY JORDAN WAGNER

Watch the video!

One of *the* most important tools in a bassist's arsenal is a well-built DI unit. These devices make it much easier to control the bass signal in the overall mix by both removing line noise and providing better handling of the instrument's lower-frequency range. The engineers at Ampeg recently upped the ante by offering something more than just a simple DI. Their new SCR-DI pedal is essentially a preamp that merges a DI unit with an SVT-inspired tone stack, EQ, and bass-overdrive circuit.

Master and Commander

The SCR-DI's die-cast zinc enclosure scores off the charts in terms of ruggedness. You'd be hard-pressed to find many other pedals on the market with an enclosure as solid as this. The EQ and Bass Scrambler overdrive circuits each have dedicated footswitches. The EQ side features a full spread of dials for volume, bass, midrange, and treble, along with a control for auxiliary input volume and switches for engaging the pedal's ultra-lo and ultra-hi frequency boosting circuits. The Bass Scrambler side—borrowed from Ampeg's BA series combos—is controlled with two dials for drive and wet/dry blending.

Direct Hit

Armed with a Fender P and a 300-watt Verellen Meatsmoke head running into an Ampeg 8x10 cab, I was able to coax out satisfying tones that were reminiscent of a late-'70s SVT, courtesy of the pedal's ultra-lo switch. It's no coincidence: The pedal is definitely voiced for producing the SVT's big and bold rumble, and it does a terrific job of capturing that vibe when coupled with a high-headroom power amp, like the one within the Meatsmoke.

Keeping the Meatsmoke's EQ knobs neutral at noon, I found the pedal's controls were sensitive enough to handle most of the tone shaping. The wide-frequency sweep of the pedal's EQ also made it possible to dial in tones that were wildly different from the bypassed tone, effectively giving me a second clean channel to switch to whenever I needed it.

The SCR-DI's Scrambler overdrive circuit scores high marks for its usability and punchy delivery. Bass overdrive effects often sound timid and tend to rely on weak, low-gain circuits. Thankfully, the SCR-DI's Scrambler circuit has neither of these regrettable qualities. I was able to sweep from light growl to mammoth grind via the gain knob. The blend control allowed me to bring in just the right amount of dry signal foundation to keep the tone clear and defined. The drive circuit was indeed useful, but compared to a RAT or Big Muff, I felt the voicing lacked a little character. That said, it gets the job done better than many other standalone bass-overdrive stompboxes.

When used solely as a pedal for practicing and performing, the SCR-DI is worth the price of admission alone. As a studio tool, however, it's worth its weight in gold. With a direct XLR connection from the pedal into my PreSonus interface, the signal from my P was vibrant with little coloration. The tone changed with a very amp-like response when I switched between fingerstyle and playing with a pick, and the bass and midrange bloomed as I strayed further from the bridge and closer to the neck. Most importantly, the signal was dead quiet during silent parts. And zero pesky background noise or hum equals happy bassist.

The Verdict

For the price of a couple of Benjamins, the SCR-DI is a no-brainer for bassists looking to add a DI to their stage and studio rigs. Its construction feels bulletproof, its preamp and EQ have a supremely wide breadth, and its overdrive circuit can cover much more ground than many standalone alternatives. Hands down—in my humble opinion—it's one of the better bass DI options on the market today.

RATINGS

PROS Noise-free DI output. Amp-like tone with responsive EQ. Connection options offer enormous potential. Doubles as a 9V-powered headphone amp. Affordable and super tough.

CONS Overdrive is highly useable, but somewhat lacking in character.

Tones	4½
Ease of Use	4½
Build/Design	5
Value	5

$199 street
ampeg.com

CLICK HERE TO WATCH this pedal at premierguitar.com/oct2015

Seagull
Canadian Made. Globally Played.
When premium **tone woods**,
attention to detail
& masterful **craftsmanship**
come together,
this is what it **sounds** like
...**naturally**.
Handcrafted in Canada
seagullguitars.com
© 2014 Seagull Guitars
Seagull is a registered trademark of 117506 Canada Inc. and a member of the Godin Guitar Family
rob lamothe

EDEN
CaliforniWAH

BY BRIAN FOX

Ever since Parliament's funk savior Starchild brandished his bop gun to bring about intergalactic Funkentelechy, the faithful have longed to create bass tones as cosmic as those conjured by Bernie Worrell, Bootsy Collins, and a host of other P-Funk players. While there's far more to funk than gadgets and gear, a single effect created helped create that signature sound: the envelope filter (sometimes called an auto wah or envelope follower). Like a wah pedal in hyperdrive, an envelope filter uses the strength of the input to control a triggered frequency sweep that notches out certain frequencies while boosting others, creating the characteristic *pyow*, *bwip*, and *dyoop* effects guaranteed to tear the roof off the mother sucker.

Gently plucked or picked notes burble beneath the surface, while a well-placed smack yields a juicy *bwap*.

Musitronics ceased production of the iconic Mu-Tron III envelope filter used on so many classic recordings in 1980, but several pedal manufactures have stepped in to fill the void. And Eden's CaliforniWAH Bass Filter is the latest such filter pedal designed specifically for bass.

Gettin' Deep

The CaliforniWAH's controls are fairly intuitive: The effect-level knob adjusts, well, just that. The low-point knob sets the frequency where the effect kicks in. Resonance regulates the amount of feedback at the cutoff frequency, while sensitivity determines the pedal's response relative to the player's dynamics. A red "voice" push button toggles between two tonal contours. (More on those in a bit.)

The CaliforniWAH is reassuringly sturdy, with an industrial steel chassis, knurled metal knobs, and durable pots. The pedal gets its juice from an included 15V power supply, and can't run on battery power. While I like the pedal's overall fit and feel, I found knob settings difficult to read while the pedal is in use because the side-positioned value indicators are best viewed from the side.

Up for the Down Strokes

Few effects are as fun as an envelope filter. I auditioned the CaliforniWAH between a Fender Jazz and an Ashdown Drophead C115H combo. With the sensitivity knob at maximum and low-point and resonance set low, the pedal goes *pyow* with every pluck. Lower the sensitivity, and the pedal engages its filter more selectively. Gently plucked or picked notes burble beneath the surface, while a well-placed smack yields a juicy *bwap*.

With the voice knob pressed in, the CaliforniWAH produces a deep throb. Toggling out elicits a quicker quack with more midrange bite. The low-point and resonance controls work together to determine the effect's depth and height, so to speak. With low point at minimum, notes take on considerable sub-bass heft. With the knob rolled past noon, the splat factor diminishes, but the tone remains rotund. Similarly, the resonance knob governs the amount of *squawk*. Fully off, notes can sound a bit murky, but clarity increases as you raise the resonance setting.

Bass filters can be a tricky in practice. If you set the sensitivity wrong relative to your attack, you get garbled mumbles where there should be authoritative *thwaps*. Fortunately, the CaliforniWAH makes light work of finding the right settings for fingerstyle, pickstyle, or thumbstyle play.

The Verdict

Anyone who thinks they can clone Bootzilla by kicking on a stompbox is crazy. But with its quality build and wide range of voices—at the right price—Eden's CaliforniWAH can be a valuable tool for any would-be Funkateer looking to get out and "do that stuff."

RATINGS

PROS Captures the classic bass-filter spirit. Many usable filter effects.

CONS Knob positions are difficult to read. No battery option.

Tones	♥♥♥♥♡
Ease of Use	♥♥♥♥♡
Build/Design	♥♥♥♥♡
Value	♥♥♥♥♡

$149 street
edenamps.com

CLICK HERE TO HEAR this pedal at premierguitar.com/oct2015

Jensen®
loudspeakers

The Nighthawk

The power of tone.

Innovative, smooth, and powerful with
a blend of rich tonal characteristics.

www.Jensentone.com

PREMIER GUITAR PREMIER GEAR

MXR Bass Distortion

BY JORDAN WAGNER

Watch the video!

MXR's M85 Bass Distortion was born out of a desire to create something a bit more extreme than the company has previously produced. To make this happen, the MXR crew reached out to Fuzzrocious Pedals founder Ryan Ratajski and proposed a collaboration to craft the ultimate modern bass-distortion pedal. This meeting of the minds resulted in the M85—a stomp that howls with a bold ferocity and packs a level of intensity that reaches far beyond most other off-the-shelf pedals in its class.

With a Homer Simpson-like level of gain gluttony, this is a pedal for serious distortion addicts.

The Right Stuff

Operating the M85 couldn't be simpler. Its 9V-powered analog circuit uses LED and silicon diode-based clipping, either of which can be selected via an illuminated push-button on the pedal's face. The silicon-diode mode is the most compressed sounding of the two, while the LED mode has a wider tone with more volume and a slight gain boost.

There are controls for tone and distortion levels, as well as dedicated dual volumes for the dry and wet signals. Here's what's particularly nice about the dry and wet dials: When they're set to noon, they're exactly at unity volume with one another. This uniformity in their tapers makes it very easy to dial in the perfect blend of unaffected and wet signals without losing definition and bite.

Collapse and Crush

To test the M85's mettle, I enlisted a rig consisting of a Fender P and an Ampeg SVT reissue with a matching 8x10 cabinet. In silicon-diode mode, the pedal delivered a fantastic bass grind with its dry and wet levels set to noon, and the tone and distortion knobs at 11 o'clock. Rolling back the Precision's volume control reined in the gain's intensity nicely.

Fans of the RAT-like Fuzzrocious Rat Tail distortion pedal (recently renamed the Cat Tail) will feel right at home with the M85. With a Homer Simpson-like level of gain gluttony, this is a pedal for serious distortion addicts. The M85 lent itself to everything from long-sustaining notes and fast-legato runs to thick, pummeling chords on my P's lower registers. And with careful tuning of the wet and dry volumes, the low end remained tight and focused without degrading into mush. The distortion had a raw edginess to it that couldn't be *completely* dialed out using the pedal's tone knob, but setting it between 8 and 10 o'clock along with a higher dry volume yielded smoother sounds that worked well for classic Jaco-inspired grit.

Compared to the silicon-diode mode, LED-mode tones possess a bigger midrange and sound wider. I found there was also a serious boost in the attack, which was faster and ballsier than before. This makes the LED mode more useful for vintage classic-rock tones with low-gain settings. After cranking the distortion to 5 o'clock and the wet knob to 2 o'clock, the M85 unleashed one of the more fierce and powerful bass-distortion tones I've come across in a *long* time—akin to a love child born from Lemmy's tone and the hellhound growl of Italian doom masters Ufomammut.

The Verdict

Cash-conscious bassists who've been clamoring for an affordable high-gain stompbox with boutique tone don't have to look much farther than the M85 Bass Distortion. Its raw and fluid distortion, crushing power, and supreme clarity make it an ideal choice for raw, blue-collar metal tones à la High on Fire and Converge. Its two distinctly different clipping modes and separate dials for the wet and dry signals give it a diverse palette of grinding tones. While the M85's best sounds often come with modern, bristling edges, the pedal can cover classic rock and metal overdrive with ease, provided the distortion and volume controls are used conservatively.

RATINGS

PROS Dual clipping modes offer a wide range of ballsy bass distortion. Separate wet and dry dials allow for exceptional definition. Solid, affordable, and simple to use.

CONS The higher-gain tones are not for the meek.

Tones	
Ease of Use	
Build/Design	
Value	

$139 street
jimdunlop.com

CLICK HERE TO HEAR this pedal at premierguitar.com/oct2015

Did you know?

WE ARE THE LARGEST BOUTIQUE AMPLIFIER SHOP
IN THE WORLD WITH HUNDREDS IN STOCK RIGHT NOW!

WE KNOW GUITARS. WE KNOW PEDALS. BUT WE *REALLY* KNOW AMPS!

Dr. Z
MESA Engineering
Tone King Amplifier Company
Two-Rock
Swart Amplifier Company
Vintage Sound
Supro
Morgan Amplification
Bad Cat Tube Amplifiers USA
Carr Amplifiers
Suhr
Carol-Ann
Victoria
Jackson Ampworks
Friedman Amplification
Tungsten Amplification

Humbucker Music

THEY SELL TONE!

#1 Dr. Z Amplification Dealer - 7 Years Running
#1 Tone King Amplifiers Dealer - 5 Years Running
#1 Two-Rock Amplification Dealer - 5 Years Running
#1 Swart Amplifiers Dealer - 4 Years Running
#1 Tungsten Amplification Dealer - 3 Years Running
#1 Suhr Guitars & Amps Dealer - 2 Years Running
#1 Vintage Sound Amps Dealer - 2 Years Running
#1 Victoria Amps Dealer - 2 Years Running
#1 Morgan Amplification Dealer - 2 Years Running
#1 Carol-Ann Amps Dealer
Multiple MESA Boogie Spirit of Art in Technology Awards

Visit Us at: WWW.HUMBUCKERMUSIC.COM *Call:* (706)866-2161

EC Superswitcher II

BY JOE CHARUPAKORN

If you're a hardcore pedal junkie, there's nothing cooler than having your favorite boxes wired up and ready to go. But once you've got all your prized stomps wired up in series, it's hard to not consider the multitudinous pedal combinations you *can't* access in a series wiring scheme. Move in a single beat from a chorused, clean rhythm part to a solo with distortion, delay, and no chorus? No problem—if you're an eight-legged ballerina.

Pedal switchers are a great solution to this problem—you can program various combinations to be available on the fly. The Superswitcher II is Israel-based, EC Pedals' latest switcher, and it's packed with possibilities. It offers many more presets than the previous incarnation (now featuring 99 banks with five presets per bank for a total of 495 presets.) The switcher's modular design also allows you to custom order a unit for your own specific needs. And you can configure a switcher with more loops, stereo loops (up to four), more relay switches, and more A/B switchable ins and outs.

Four Plus Four = Gazillions

I tested the Standard EC2, which has a 4+4 configuration (you can also order a 6+2 configuration), that is the first four loops go in front of the amp and the remaining four go into the amp effects loop. The first seven loops are mono and the eighth has a mono send and stereo return. You can also set the switcher up as two independent signal paths with four loops each. You navigate the copious quantity of presets via the LED display. There's also a built-in tuner, MIDI in and out, and an expression pedal port that enables control of up to 5 midi devices with a single expression pedal. You can even integrate a channel-switching amp if you have one via two relay switches that control footswitchable functions like channel switching and reverb.

Multi-Effects Mindset

For this review, I pulled out a Rockbox Red Dog, Mesa/Boogie Bottle Rocket, MXR Phase 90, and Ibanez DML-10. I aimed to save two separate setups—light crunch with phaser for rhythm, and thick lead with delay—as presets in the Superswitcher II's live mode.

Given all that it can do, it's little surprise that there's a learning curve. If you've spent time programming multi-effects units then you'll be fairly well equipped to tackle programming the Superswitcher II. Still, it took me some time to get up and running with manual in hand. When I did, interacting with the Superswitcher II was rewarding very quickly. Controlling old, familiar pedals as if they were part of a programmable DSP machine was revelatory. So was not having to do a tap dance to change my sound. And the ease with which you can access new sound combinations left me itching to drag out a bunch of pedals in the closet collecting dust.

Controlling old, familiar pedals as if they were part of a programmable DSP machine was revelatory. So was not having to do a tap dance to change my sound.

Less Can Be More

The Superswitcher II deals with the complications of buffered and true-bypass pedals in simple ways. "Silly" mode keeps noisy, signal-robbing pedals out of the chain until you need them. There's also a switchable input buffer, so you can buffer your signal path if you like, or switch it off when using primitive fuzzes or other pedals that sound better without buffering.

The Verdict

The Superswitcher II can handle unusual routing scenarios that make an ordinary pedalboard feel like a DSP-driven beast. But even if your needs are simpler, this unit can be an invaluable asset. Given the compact package, extensive routing options, simple operation, and reasonable price, it's one of the most appealing new switching options around.

RATINGS

Ease of Use
Build/Design
Value

PROS Can be custom configured. Fits on a pedalboard.

CONS Can take some time to get up and running.

$449 street
superswitcher2.com

Ethereal, point by point. Introducing the new Diamond Counter Point multi-tap delay. Four delay tone voices including dark repeats, galloping eighths, a 3-tap 'ambient' spatial delay, and a unique tape style mode, all with foot-switchable modulation.

With delay times ranging from 80 to 1200 ms, tap tempo, and standard 9V power, the Counter Point integrates easily into both your setup and music style. *Classical* Diamond Tone.

Diamond
GUITAR PEDALS

2-800A Windmill Road, Dartmouth, NS B3B 1L1
www.diamondpedals.com info@diamondpedals.com

PREMIER GEAR

GIGRIG G2

BY JOE GORE

More and more guitarists are migrating from traditional pedalboards (with effects wired in series) to digital switching systems, where each effect connects to a central "brain" via its own isolated loop. The pedals always remain on, and the switcher adds them to the signal path as desired. That means less noise and signal loss, but the selling point for many guitarists is the ability to switch multiple effects with a single foot tap. That's a godsend for players who, say, sing lead vocals, or simply hope to make occasional eye contact with their audience.

That's the basic idea, but GigRig's G2 blasts past the basics—and does so in remarkably intuitive ways. I fired up G2 without cracking the manual, and within five minutes, I'd programmed half a dozen presets.

The Wise Size

Measuring 17" x 5" x 3" and weighing in at just under five pounds, G2 isn't petite. But it must be that that size to accommodate the large network of rear-panel 1/4" jacks required by its 10 independent loops (two are stereo) and other features. Also, the size provides just the right spacing for the 14 top-panel footswitches. The ergonomics are great—even big feet in boots should have no problem stomping a switch without disturbing its neighbors. The rear panel includes MIDI in/out jacks, so you can store settings and switch programs on "smart" pedals.

All controls reside on the top panel between the footswitch banks. I winced when I saw they're the soft-touch plastic buttons common on rack effects 25 years ago. It's not a fun material to interact with, there's no reassuring hardware "click." But I soon realized that the soft buttons are actually a wise design choice.

Big Box Stores

The soft buttons are so low-profile that it's nearly impossible to inadvertently switch them. Also, you need to press them far less frequently than on old-school rack effects, which brings us to one of G2's cleverest tricks: There is no "edit" mode. No "store" mode. No fussy combined-switch maneuvers or long-tap/short-tap nonsense. You never need to save *anything*—G2 always remembers your settings, even after powering down.

Programming G2 is absurdly simple. Tap the footswitch you want to program, and then push the buttons for any effect you want to add to its loop. That's it. It so easy, you could even alter settings mid-performance should inspiration strike. Love it!

While in edit mode, you can choose additional options—and that brings us to more of G2's remarkable skills. Since the rear panel has two outputs, players with two amps can specify whether each program feeds amp A, amp B, or both. G2's backside also hosts four remote-switching jacks, so you can, say, switch channels or engage amp reverb or tremolo and store the status with your program.

Gain and Again

But the coolest function may be the programmable pre- on post-gain settings—a feature I haven't encountered elsewhere. G2 lets you set and recall the level feeding each effect loop as well as its return volume. This is potentially *huge* for players who use dynamically responsive overdrives, boosters, and fuzzes. Say you've connected a vintage-style Fuzz Face: One program might slam it hard for fat fuzz. Another might trim the signal feeding the pedal for a near-clean sound. A third might drive the pedal aggressively, but cut the signal feeding the amp for a hard, buzzy tone, while another might wallop the amp for maximum *splat*. It's easy to imagine filling up G2's program slots even if using only two or three stompboxes.

And how many programs can you store? Eight banks of 15 slots each for a total of 130. But another killer G2 feature may render the 15-per-bank calculation meaningless: You can set any footswitch/pedal to "stompbox mode," toggling it on and off as on a conventional pedalboard. You might, for example, not program a reverb pedal into your presets, but toggle it off and on as needed, regardless of the active program, or do the same with a gain pedal for an always available solo boost. Factor in such possibilities, and the de facto number of programs per bank is … a buttload.

The Verdict

Looper/switchers are new technology for many players, but GigRig's Daniel Steinhardt has been building them for a decade, and the experience shows. His G2 has far more functions that I could cover here—I just spotlighted some showstoppers. At $1,199, it's a big investment. But that buys you serious hardware suitable for pro tours, and innovative software with unique and meaningful features. G2's ultimate feat may be the way it makes these complex functions so disarmingly simple.

RATINGS

PROS Road-ready construction. Vast programming options. Ridiculously easy to use.

CONS Spendy.

Ease of Use
Build/Design
Value

$1,199 street
thegigrig.com

CS12

- The first power brick to use 1 SPOT® technology
- 12 fully isolated outputs
- 5 voltage options provide power for virtually any effect pedal
  - Variable 4-9Vdc, 12 Vdc, 18 Vdc, 9Vdc and 9Vac
- Includes brackets for mounting under Pedaltrain® pedalboards
- Cables and converter plugs included
- Switchable Worldwide Input Voltage

3x more power
...than the most common power brick

CS7

- The first power brick to use 1 SPOT® technology
- 7 fully isolated outputs
- 3 voltage options provide power for 99% of effect pedals
  - 9Vdc, 12 Vdc and 18 Vdc
- Includes brackets for mounting under Pedaltrain® pedalboards
- Cables and converter plugs included
- Worldwide Input Voltage

2x more power
...than the most common power brick

NEW V3
JEKYLL & HYDE
OVERDRIVE
+
DISTORTION
LIFETIME WARRANTY

TRUETONE®
{formerly Visual Sound}

TRUETONE.COM

Pedalboards

A dependable and efficient pedalboard is a must for any stomp fanatic. Here we've rounded up a collection of options for a wide variety of tastes and needs.

1
GATOR CASES
G-Mega-Bone

This arched board has a pair of larger areas for wah and volume pedals and can accommodate up to 10 stompboxes. A 9V daisy chain power supply and a heavy-duty lightweight carry case are included.

$129 street

gatorcases.com

2
T-REX ENGINEERING
ToneTrunk 70

The ToneTrunk's two-tiered, lightweight aluminum design accommodates up to 20 effects and provides a unique porting setup. Includes a padded gigbag.

$149 street

t-rex-effects.com

3
PROTEC
Stonewood SWPB2

This no-nonsense board features a rugged, textured-vinyl exterior atop a wood frame, heavy-duty metal latches, back- and bottom-side feet, and soft interior padding.

$109 street

protecstyle.com

4
ON-STAGE
GPB3000

This budget-friendly pedalboard accommodates 10 medium-sized effects, is angled for comfortable stomping, and includes a gigbag.

$75 street

on-stage.com

5
CREATION MUSIC COMPANY
Heritage Series 24x16

This handcrafted zebra-wood board features dovetail joints and is decked out with a recessed power socket with on/off switch, a quartet of 1/4" Switchcraft plugs, and a multi-slot top. Other pedalboards start at $95.

$347 street (as shown)

creationmusiccompany.com

6
BOSS
BCB-60

Constructed of durable molded plastic, this pedalboard includes a built-in AC adapter that can power up to seven pedals. It's lightweight for easy transport and there is ample room for customized setups.

$169 street

bossus.com

7
DIAGO
PB02 Gigman

This hand-assembled board features 1/2" Eastern plywood construction, a durable polyweave skin, dense interior padding, and quality catches, hinges, and corners strengtheners.

$149 street

diago.co.uk

8
PEDALTRAIN
Novo 24 with Tour Case

The 24 features an aluminum frame with a modified rail design for players who use switchers or need to accommodate a wide range of configurations. Includes heavy-duty road case.

$269 street

pedaltrain.com

9
HOLEYBOARD
Standard MKII

Inspired by skateboard decks and disdain for Velcro, Holeyboards use 12-ply Baltic birch construction and use zip-ties to secure your stompboxes.

$99 street

chemistrydesignwerks.com

10
PEDAL PAD
MPS-XL III C NP

Pedal Pad's patented modular design lets you stair-step effects between two levels or align panels to accommodate larger pedals. Also includes dual external inputs and outputs, and an inlet/outlet AC socket.

$399 street

pedalpad.com

ASHER GT-3

By Shawn Hammond

Considering how many revered players own his instruments—luminaries as diverse as Lindsey Buckingham, Maroon 5's James Valentine, Greg Leisz, Chris Robinson, and Redd Volkaert—it's surprising how low a profile Bill Asher has. We've admired his work before (Modern Builder Vault, December 2011), but this is our first crack at reviewing one of his lovely guitars.

PG spotted the GT-3 shown here at Summer NAMM this year and was immediately smitten. We asked Bill to send it off for a cover photo shoot last issue, and he did so after leaving Nashville for Venice, California, where he builds from a small shop while his wife, Jessica, handles marketing, web, and other business matters. Once we got the GT-3, we couldn't send it off to its next destination, Chicago Music Exchange, before giving it a whirl.

Teisco Del Grace

With its flowing single-cut outline, modified ashtray bridge, compensated brass saddles, and Tele Custom-ish anodized-aluminum pickguard, the Asher GT-3 might strike some as a boutique nod to Leo Fender's first solidbody. Only the Lollar Gold Foil pickups hint at another design inspiration just below the surface: In an effort to summon off-the-beaten-path tones of yesteryear, Bill Asher gave the GT-3 a body and neck of solid mahogany—just like many foil-sporting '60s Teisco Del Reys. He also greatly expanded the versatility of the instrument's traditional 5-way selector and master volume and tone knobs by adding a 6-position Varitone-like knob.

Finish and setup work on our surprisingly light GT-3 was primarily exquisite: Fret and nut ends were rounded and nicely polished for exceptional playing comfort, the various parts fit together nicely (though there was a tiny, asymmetrical gap on the treble side of the neck joint), and both the rich tint on the back of the neck and the crème body finish were perfect, save for a pinhead-sized dimple at the neck heel.

Grace, Meet Grit

Though vintage Teisco, Harmony, and Airline guitars have skyrocketed in popularity in recent years, it's probably safe to say

that the average guitarist still has little experience with the "gold-foil" pickups that are a big part of many of those old instruments' unique tones. Some more affordable guitars these days feature pickups with a similar visual aesthetic, but true gold-foils—the ones preferred by Cooder, Jack White, and Dan Auerbach—feature a very unorthodox construction approach that uses rubberized ferrite magnets and a very thin wire bobbin. The resulting tones are harmonically rich and surprisingly hot.

How Jason Lollar's three authentically old-school Gold-Foils sound in the Asher is quite interesting—it's nearly equal parts Strat, Tele, Teisco and, thanks to the ultra-versatile Varitone knob, even Gibson. With typical Strat switching combinations, the GT-3 (in Varitone position 1) offers bridge-pickup sounds that are a cross between Strat-y sting and Tele twang, a couple of flavors of fat, funky in-between sounds, a beefy yet cutting middle option, and a robust, bell-like neck tone. But that's only scratching the surface.

Whoa, Trigger

To explore the GT-3's many switching options, I plugged it into my go-to rig, an EL34-powered Jaguar HC50 running in tandem with a 6973-powered Goodsell Valpreaux 21. This dual-amp setup blends clean, "American"-amp warmth with the girth and liveliness of a larger "British" amp on the verge of breakup. Through this rig, the GT-3 exhibited surprising volume and lots of bristling harmonics, two key qualities that players who prefer primal tones dig about authentic gold-foils: They tend to react to aggressive attack with a grittiness that can be positively primeval—perfect for rowdy roots music.

With its volume and tone full up, and the Varitone in position 1, the Asher yielded this rawness in spades. Bringing the master tone control back proffered an impressive range of color, even quasi-cocked-wah sounds. Then there's the Varitone knob: Each click through its range decreases high-end sparkle and increases midrange skwonk and low-end definition. By position 6, the treble is so attenuated you get dark, smoky sounds reminiscent of a humbucker-equipped semi-hollowbody with tone knobs rolled back—even with the Asher's master tone fully clockwise. Even the soloed bridge pickup becomes remarkably warm at this setting.

The thing that struck me most about the GT-3's responsiveness was how the pickups are more like humbuckers than single-coils—not in terms of tone, but in how they interact with your rig. I primarily play vintage-style single-coils because of their sparkling clarity and how exceptionally adaptive they are to playing dynamics. With a heavy stainless steel pick I can go from a punchy, ruthlessly cutting sound to quiet tinkling by simply loosening my pick grip and easing up on my attack and/or using my fingertips. But when I plugged the Asher into this same rig that yields such spectacular results with Teles, Danelectro lipsticks, and Jazzmaster-style pickups, the steel pick was simply too grating for similarly nuanced playing, even with a very gentle attack and no boost or drive engaged.

Now, obviously I *could* have adjusted my amps' foundational tones or perhaps tried different picks, but I found these contextual lessons telling: To incorporate the Asher into a rig I find superb with many other guitars, I had to significantly alter my technique. That said, the alternate approach did yield wonderfully rich, delectably textured results—thumping R.L. Burnside-inspired rhythms from your thumb, down-home alt country when you grab and snap the stings, and sauntering roots rock when you flick, slap, and strum. Truly, these are sounds you just won't get from other pickup types.

The Verdict

Far from just another T-style, the Asher GT-3 is one of the most beautifully distinctive and sophisticatedly understated single-cuts we've seen in some time. But despite its Fender-ish outline, the GT-3 really shouldn't be thought of as a Tele variation. Depending on your rig, the unique tones from its Lollar Gold-Foils *could* be problematic if you'd like to switch between it and other guitars with more traditional pickups onstage. But as long as you know what you're getting into, you'll find that the pickups yield a wide array of rootsy tones, even before you factor in Bill Asher's simple yet astoundingly powerful control array. Simply put, in terms of features and execution, the GT-3 is a thoughtfully designed, lovingly built instrument that walks the line between tasteful art and highly practical tool.

CLICK HERE TO HEAR this guitar at premierguitar.com/oct2015

RATINGS

Asher Guitars GT-3

$3,756 street
asherguitars.com

Tones	4.5
Playability	5
Build/Design	4.5
Value	3

PROS Classic-yet-unique visual vibe. Quality craftsmanship. Lightweight. Exceptional EQ flexibility.

CONS Pickups can sound strident with some rigs. Pricy. Minor detail issues.

GUILD
M-140E

Watch the video!

By Adam Perlmutter

In 1966, Guild Guitars—then just 13 years into its existence—moved from Hoboken, New Jersey, to Westerly, Rhode Island. Today, many players and collectors love those Rhode Island-built instruments, particularly ones from the mid '60s. They were well made at a time when some bigger companies were seeing quality slip, and several of these Guilds—acoustics, electrics, *and* basses—became axes of choice for young, rule-breaking players of the era. The Rhode Island instruments were also original and innovative: That cutaway dreadnought profile that's so ubiquitous now was a pioneering move by Guild in 1972.

Guild recently changed ownership after a few decades in the hands of Fender, moving its headquarters to Oxnard, California, where it's now a subsidiary of Cordoba Music Group. Given this change, it's no surprise the company would reassert its roots and history by lending the Westerly handle to this new series of Chinese-built acoustics. The Westerly Series guitars pay homage to Guild's Rhode Island history in more than name, however. Several classic Guild body styles turn up in the line, including the concert-sized M-140E reviewed here.

Functionally Classic

With a solid Sitka spruce top and solid mahogany back and sides, the M-140E is an attractive guitar with just enough upmarket details to feel a bit fancy without spoiling the intrinsically attractive lines. It sports the same headstock logo

seen on ’60s Guilds, a vintage-looking tortoiseshell pickguard, and open-geared tuners that add to the old-school effect. More luxurious details, like a mother-of-pearl rosette and rosewood headstock cap, are nice flourishes. And the Fishman Sonitone electronics offer amplification flexibility via discrete, soundhole-mounted controls rather than a hunk of plastic on the side of the guitar.

Our review M-140E is very nicely built. The mahogany in particular has beautiful grain structure and coloration, and all of the binding is tight and flush with the body. The NuBone nut and saddle are perfectly notched, and the fretwork is clean. Bracing and kerfing are all tidy, too. My only minor complaint might be the high-gloss polyurethane finish, which is applied a bit thick in spots.

Compact Comfort

The M-140E’s diminutive dimensions make it very comfortable to play. The mahogany neck has a comfy, C-shaped profile, and the 24 3/4" scale and wider, 1 3/4" nut make stretchy chords and fingerstyle moves feel easy. The action is perfect—low but not overly so—and the neck is free of dead spots and fret buzz.

Meanwhile, its voice has many of the classic, mahogany-backed small-body attributes: It’s warm and slightly compressed, with impressive midrange response and strong fundamentals. The guitar also has great dynamic response for a small-bodied instrument—thanks, no doubt, to the Sitka top. Not surprisingly, the guitar works terrifically well for fingerstyle country blues, and the fast response makes it very sensitive to picking nuance.

Nick Drake used a concert-sized Guild (an all-mahogany M-20), so it was only natural to try a couple of his pieces on the M-140E. The accompaniment for “Cello Song” (which has the 3rd string tuned down to F♯ and a capo at the 6th fret) benefitted from the instrument’s warmth, but the main pattern of “Fly” (slackened B–E–B–E–B–E tuning, 4th-fret capo) suffered from the 6th string’s slightly anemic response.

The M-140E works pretty well as a strumming guitar, though Carter-style patterns required a little extra emphasis in the bass and a lighter touch on the high strings to get the most balanced sound. Single-note lines are especially satisfying, though. The guitar has a sweet, natural reverb that lends expansiveness, and the high end is never thin or brittle. Chord melodies benefit from these same qualities, with individual notes in tightly voiced chords sounding clearly and with great separation. The Sonitone pickup sounds very natural too, and does an excellent job of communicating such harmonic details.

The Verdict

At about $850 street, the Guild is a fair value for an all-solid-wood guitar, though small miscues like the thick finish hold it back from being a superb deal. The M-140E might not feel exactly like a classic Guild, but it’s a very nice little guitar in all regards—well built, excellent sounding, and easy to play.

CLICK HERE TO WATCH A DEMO of this guitar at premierguitar.com/oct2015

RATINGS

Guild Guitars M-140E

$850 street
guildguitars.com

Tones	4
Playability	5
Build/Design	4
Value	3

PROS Solid-wood construction. Nice sounds and playability. High-quality electronics.

CONS Slightly weak bass response. Minor finish issues. Could be more competitively priced.

SCHECTER
Diamond-P Plus

By Jordan Wagner

Watch the video!

Schecter's Diamond series has been a popular option for budget-conscious players since the line was introduced in 1998. The guitars and basses were the Sun Valley, California, company's first line of instruments made overseas, and their workhorse qualities and wallet-friendly price points have kept them in production ever since. The South Korean-made Diamond-P Plus bass is a new iteration of one of the series' most successful basses.

Diamonds Are Forever

At first glance, the differences between the original Diamond-P and Diamond-P Plus aren't immediately apparent. But while the Plus retains the vintage P-bass-inspired look and contoured alder body of the original, it also brings a handful of important upgrades to the original formula.

For starters, the bridge has been replaced with a custom, string-through Wilkinson WBBC with four individually intonatable and height-adjustable brass saddles. The original Diamond-P's four-bolt neck joint has been swapped with a robust, six-bolt design for stronger sustain and tuning stability. The Plus's upgraded maple neck features carbon-fiber reinforcement rods, a new neck-joint contour for better access to higher frets, and vintage-style Grover tuners. The 20-fret 'board has also been updated with a modern 12" radius. The black-finished models come with bound-rosewood fretboards, but sunburst models like the one reviewed here have maple fretboards.

The Diamond-P Plus comes loaded with Seymour Duncan SMB-4D and Quarter Pound SPB-3 pickups in the bridge and neck positions, respectively. Their collective output is shaped by a master volume, a Seymour Duncan 18V 2-band active EQ, and a

4-position rotary switch that selects between soloed pickups or running the pair together in series or parallel. The push-pull master volume also lets you choose either series or parallel mode for the bridge pickup.

Plus-Sized Power

After unpacking the bass and performing a minor neck adjustment, I found that the Plus played as comfortably and smoothly as many higher-priced basses. The neck's perfect fretwork and finish had a sleek, silky feel that made playing everything from fast runs up the neck to anchored, in-the-pocket grooves feel painless and fluid.

I tested the Plus through an Ampeg SVT driving an 8x10 cabinet. I started out soloing the bridge humbucker with the EQ controls set flat, which delivered crisp, authoritative high-end, an articulate midrange, and tight low end. When slapped, the strings yielded a thumping, Music Man-esque vibe, thanks to the Duncan SMB-4D—which was designed as a StingRay replacement. And whether I played single notes, full chords, or harmonics, the bridge pickup's high-output, ceramic-magnet design helped them all leap out with minimal plucking or picking effort.

Switching to the Quarter Pound neck pickup yielded fatter, rounder tones akin to a hot-rodded P bass. I enjoyed how the midrange got thicker and the treble response warmed up with a softer finger attack from my plucking hand, yet the Plus still barked and got toothier in the highs when I dug in with more force. If the lows or highs ever felt unbalanced, a quick adjustment of the active EQ restored order.

Combining the Plus's pickups in parallel yielded more bite and sparkle. This was ideal for songs with prominent, melodic bass parts played with a plectrum— à la the Cure and New Order. Since both pickups' treble response is already quite strong, I found myself attenuating treble a bit in this mode to avoid strident top end.

For all out Armageddon, the series mode is hard to beat—it's got *staggering* punch. The volume difference between series and parallel modes is a whopping 30 percent! My 8x10's speakers had trouble articulately translating the sudden boost in mids and lows, so I lowered the amp's preamp gain and the Plus's master volume for a little more breathing room. The tone was gloriously burly, with room-shaking low end—albeit at the expense of much of the other modes' clarity. It was a cool tone, though the frequencies seemed to be fighting for dominance. However, when I switched from fingerstyle to a pick the separation between the highs, mids, and lows was more distinct. To paraphrase Marty McFly: It's not for vintage purists—but your kids are gonna love it.

The Verdict

Schecter's Diamond-P Plus delivers authoritative, modern bass tones with exceptional detail and control. And it feels great to play, thanks to the neck's updated shape and profile. Don't let the vintage-inspired looks deceive you: Its high-output electronics don't yield the subtle responsiveness and warm, bubbly lows of a vintage P bass, but it is one hell of a bass for contemporary rock and metal. It's also particularly well suited to slap and pop. Factor in the sturdy build and reasonable price, and it's a worthy option for working bassists of many stripes.

CLICK HERE TO WATCH A DEMO of this bass at premierguitar.com/oct2015

RATINGS

Schecter Diamond-P Plus

$799 street
schecterguitars.com

Tones	4.5
Playability	4.5
Build/Design	4.5
Value	4.5

PROS Wonderful fit and finish. Strong tones with a modern edge. Attractive and affordable.

CONS Lacks vintage P-bass warmth. Series mode can sound quite muddy.

Carbon-fiber-reinforced maple neck

Question & Obsession

Jennifer Batten joins PG staff in discussing the first time we ever stomped in the name of guitar.

Q: What was your first pedal, and do you still have it?

Jennifer Batten

Guest Picker

A: It was a Ross distortion pedal. It was my first pedal so I wasn't too discerning in my early teens. To be able to go from a crystal-clean sound to great sustain was enough for me. Fortunately for the sake of having space in my home, I got into the eBay habit years ago. Anything smaller and lighter—sign me up, because I fly for most of my gigs. My distortion now comes from the revolutionary Amp1 by Thomas Blug, a killer German guitarist who's engineered for Hughes & Kettner for 20 years and has invented what is essentially a 3-pound, 4-channel, 100-watt vintage Marshall that you can toss in your gig-bag pocket. The killer distortion comes from a nano tube. My sound has improved 1,000-fold. I just toss it in my backpack when I fly.

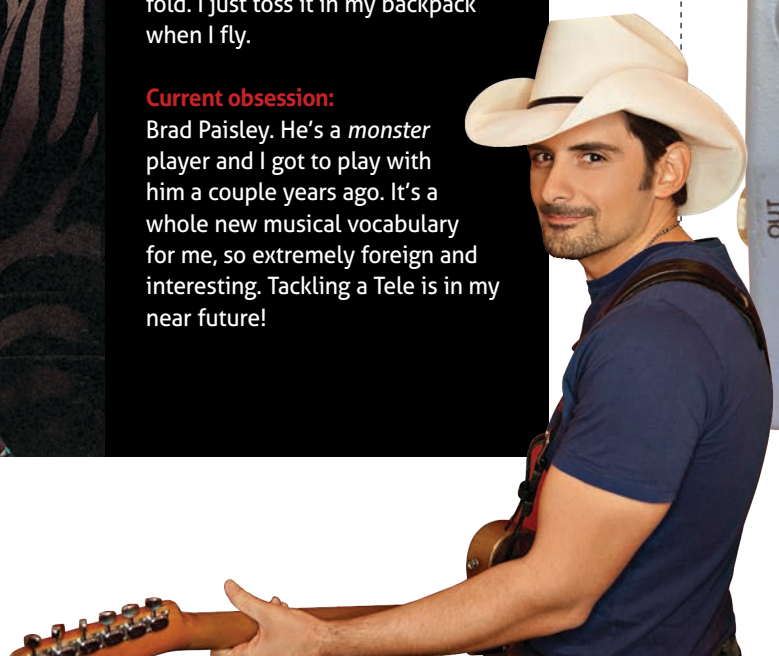
Current obsession:
Brad Paisley. He's a *monster* player and I got to play with him a couple years ago. It's a whole new musical vocabulary for me, so extremely foreign and interesting. Tackling a Tele is in my near future!

John Bohlinger

Nashville Correspondent

A: In 9th grade, I laid out $40 in wrinkled, sweaty bills for a '70s-era Ross compressor. I still have it on my studio board.It's noisey, no LED, and sounds awesome.

Current obsession:
Playing what I don't know. Fingers tend to want to travel over familiar territory, so a lot of my playing is just repeating patterns I've practiced for years.It's gratifying to discover something new.



Andy Ellis

Senior Editor

A: My Vox V846 wah—a "Thomas Organ Co. Sepulveda, CA" model, serial number 1956250. I bought it at a guitar shop on Sunset in Hollywood, around 1971. Still have it! (Pictured here.)

Current obsession:
21st-century psychedelic guitar. I was there in the mid '60s for the first wave, and this iteration sounds equally cool to me. Current fave is *Here in the Deep*, the new solo album by Dave Heumann (Arbouretum). Moodier than the freakouts of '69, but no less spellbinding—especially through my '70s Klipsch Heresy speakers.

Joe Gore

Senior Editor

A: No nostalgia here! It was an MXR Distortion+, and I hated it. I loathed every other late-'70s/early-'80s overdrive too. They sounded boxy and fake—so much less attractive than straight guitar sound. I didn't realize till the '90s — when Prescription, ZVEX, and Way Huge began cloning late-'60s/early-'70s circuits—that I love the explosive crackle and hair-trigger dynamics of old transistor-based fuzzes and boosters far more than the smooth, compressed sound of IC-based overdrives.

Current obsession:
I'm digging the free-range guitar work of the band !!!. They seem obsessed with circa-1980 post-punk, when dance beats collided with noisy, abstract guitar.

Jason Shadrick

Associate Editor

A: My uncle gave me a crusty old Ross distortion that was probably from the '70s. It was tan with just a pair of knobs that were really scratchy. Armed with a bucket full of thoughts on how to fix it, I took it to my high school electronics class where it died a slow death.

Current obsession:
I've been going deep on the soulful side of Americana and country music. The amazing skill and craft of Jason Isbell, Chris Stapleton, and nearly everything producer Dave Cobb touches, has given me many lessons on simple fills, strong melodies, and the art of arrangements.

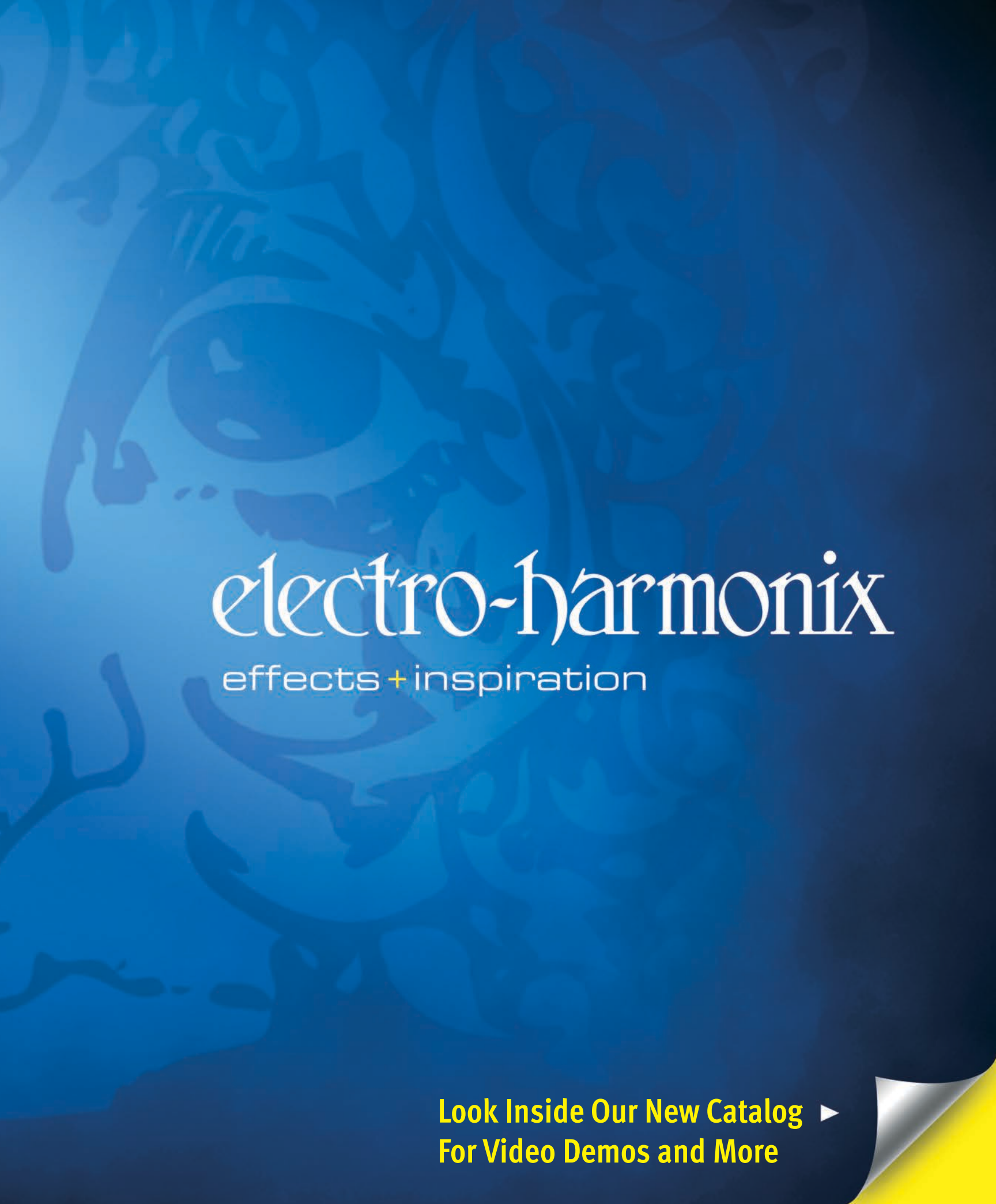
REVERSE
OCTAVE
A
68
22500
dual stereo loop
REVERSE
OCTAVE
B
RHYTHM
L
LOOP A
LOOP B
electro-harmonix
NEW YORK CITY, US

SUSTAIN

DRY
VOX
KEYS
OUTPUT
KEYS
CTRL 1
CTRL 2
5
6
7
8
9
XO
electric
piano
machine
1 DYNAMO
2 WURLI
3 SUITCASE
4 MALLETS
5 EIGHTY EIGHT
6 TRI-GLORIOUS
7 VIBES
8 ORGAN
9 STEEL DRUMS
electro-harmonix
NEW YORK CITY, USA
INPUT

TREBLE
Soul Food
AMP

BLEND
SHIFT
DUAL
LATCH
OUTPUT
EXP
INPUT
PITCH
FORK
electro-harmonix
NEW YORK CITY, USA


electro-harmonix
effects + inspiration
Look Inside Our New Catalog ►
For Video Demos and More

mid-century
MAVERICK

Reel-to-reel tape machines brought us some of the fattest sounds imaginable. Deco brings this inspiration back, giving you vintage tape effects from the earliest recording studios. **Tape Saturation** fattens your tones with luscious tape compression and subtle tape-driven transparent overdrive. The **Doubletracker** thickens your sound with syrupy slapback tape echoes, tape flanging, and gorgeous tape chorusing sounds.

strymon.net/**deco**

strymon

CHANGE IT · CRANK IT · SHRED IT

www.bourns.com/proaudio

BOURNS® PRO AUDIO

PG Gearheads win!

Brandon Sissom of Chattanooga, TN
Winner of the Martin D-35

PG KRAMER EVH

Enter at PremierGuitar.com/Contests

Void where prohibited. Read full rules on PremierGuitar.com. To enter our gear giveaways by mail, legibly hand-print your first and last name, address, age, and day and evening phone numbers on a 3"x 5" card and mail to:

Sweepstakes
Gearhead Communications, LLC
Three Research Center
Marion, IA 52302

imagine

only one cable to your pedalboard

Imagine PedalSnake®.

The fastest, ultra-clean setup ever, with all your connection needs—cord to amp input, send-returns, power, MIDI, amp footswitch lines—and more. All run elegantly within a lightweight, multi-core cable, sporting a flexible outer jacket that lies safely flat-and-smooth on the floor, with effortless coil-up when the gig is done. Best of all, it's customizable—the plug'n'play format configures to any rig, and easily adapts when your rig changes, making PedalSnake® an affordable lifetime investment.

Impossible? It was with regular guitar cables. But PedalSnake®'s patented new wire construction takes advantage of the low-impedance outputs of effects pedals—ensuring noiseless, sparkling tone. And you can try PedalSnake® worry-free, with our excellent customer support and 30-day money back guarantee.

So imagine no more. Experience PedalSnake®, and believe.

Voted Best Accessory
Guitar Player Magazine

PedalSnake®

FOR MORE VISIT PEDALSNAKE.COM

The Best of Two Worlds

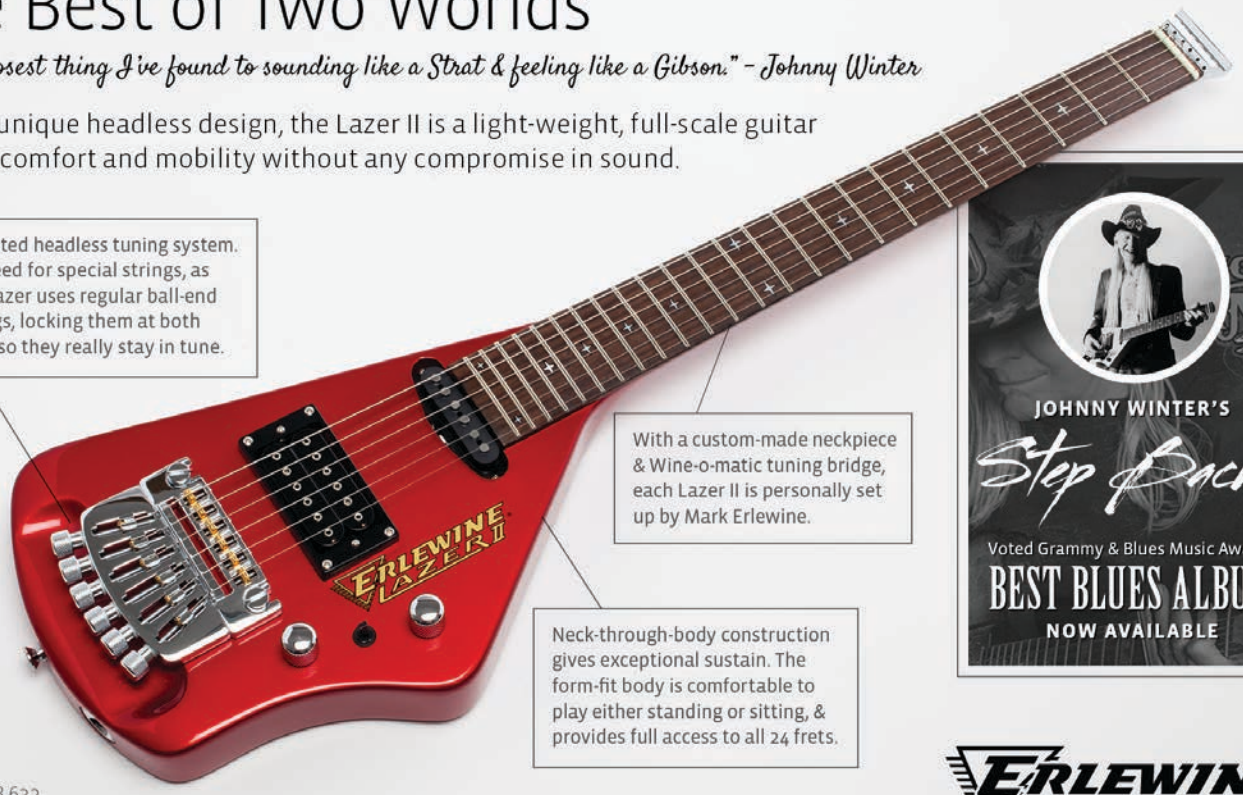
"The closest thing I've found to sounding like a Strat & feeling like a Gibson." – Johnny Winter

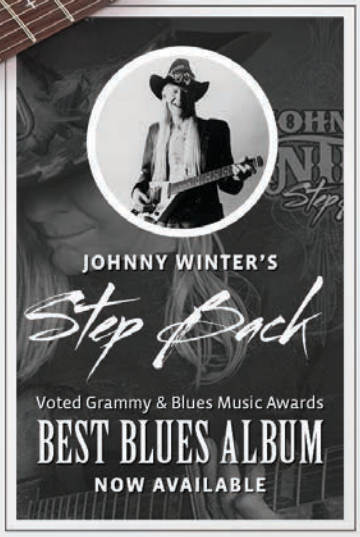
With its unique headless design, the Lazer II is a light-weight, full-scale guitar built for comfort and mobility without any compromise in sound.

Patented headless tuning system. No need for special strings, as the Lazer uses regular ball-end strings, locking them at both ends so they really stay in tune.

With a custom-made neckpiece & Wine-o-matic tuning bridge, each Lazer II is personally set up by Mark Erlewine.

Neck-through-body construction gives exceptional sustain. The form-fit body is comfortable to play either standing or sitting, & provides full access to all 24 frets.

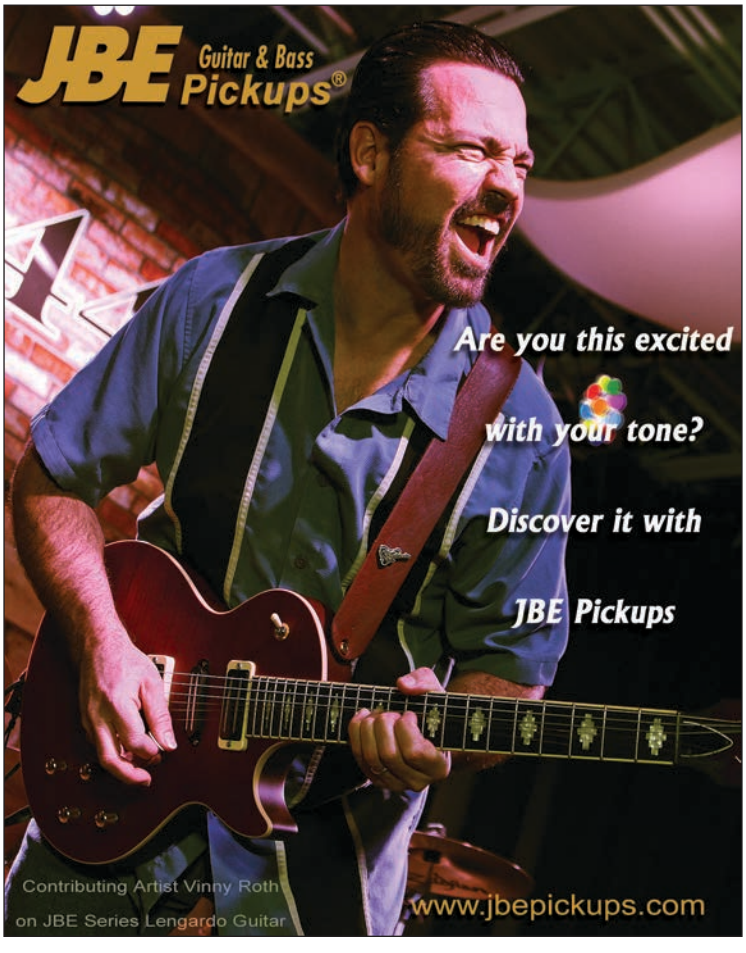




Patent #278,632

Phone: (512) 302-1225 Fax: (512) 371-1655 Web: erlewineguitars.com Mail: mark@erlewineguitars.com

ERLEWINE GUITARS®



the bass pedal your guitarist wants to steal...

NEW

full frequency response

bass fuzz suboctave

keep yours close

- dual independent controls
- 100% analog
- dual internal master volumes
- totally new
- totally unique

RED WITCH

original chrome series

www.redwitchanalogpedals.com www.facebook.com/RedWitchPedals

MADE IN U. S. A.

No Velcro
Patents Pending
Lifetime Warranty
Curved Deck
2 Levels

HOLEY BOARD PEDALBOARDS
Better. By good people.

Holeyboard WIDE MKII in Birch

Quick.Tight.Better.
www.chemistrydesignwerks.com

Hear The Engine Roar

SVL Daytona Set
Matt Schofield's
signature pickup set

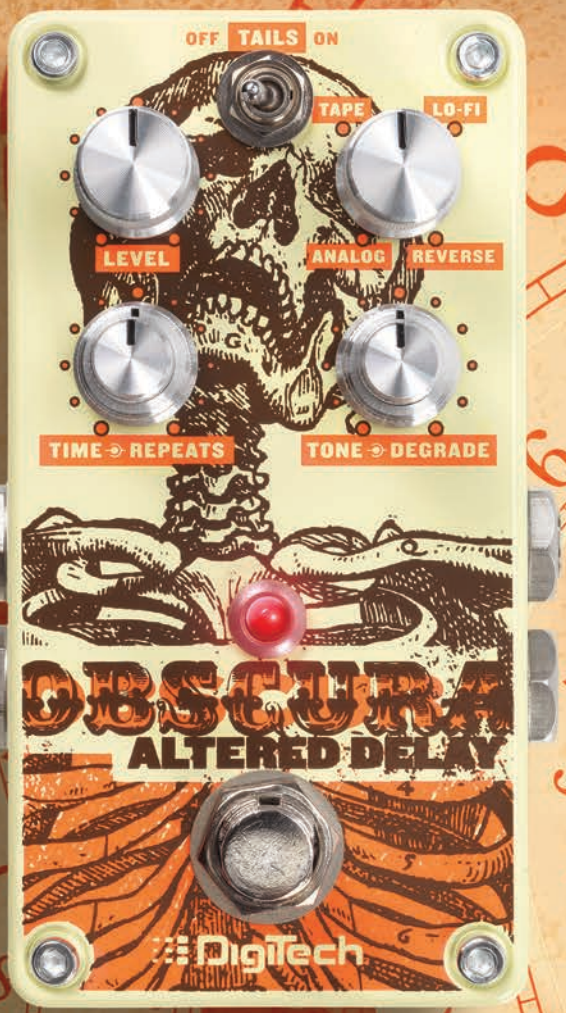
AMALFITANO pickups™
amalfitanopickups.com
(817) 917-8707

Missing your favorite issue?

Buy it today.

PremierGuitar.com/back-issues

DigiTech by HARMAN



DESTROY TIME

Destroy time with the Obscura Altered Delay from DigiTech. Its four delay modes can be darkened, degraded, and distorted on the fly with the stacked Tone and Degrade controls. Combine these controls with Repeat/Hold and lose yourself in long trippy, gurgling repeats or manipulated backwards sonic mayhem. Obscura also has excellent sounding Analog, Tape, Lo-Fi, and tap tempo modes with beat divisions, stereo in/out, tails switch, and true bypass.

DigiTech is distributed by U.S. Music Corp, a division of Jam Industries, LTD. | 1000 Corporate Grove Drive, Buffalo Grove, IL 60089 | 800.877.6863

The Ultimate Analog Profiler.

Venus Recording ™ 25watts all tube, 2 channel, 7 voicings, headphones out, Aux In for jam along or re-amping, built in Rockcrusher Recording for endless tone shaping and Pre & Post assignable Effects loop. There's so many possibilities, you'll need to go to Rivera.com to learn more.

RIVERA AMPLIFICATION
Rivera.com

RotoSPIN

NEW Rotary Speaker Effect!

So real, your audience will ask:
"Wow, where's your rotary speaker cabinet?"

MADE IN THE USA
www.DLSeffects.com

Pedal-links
Effect Pedal Mounting System

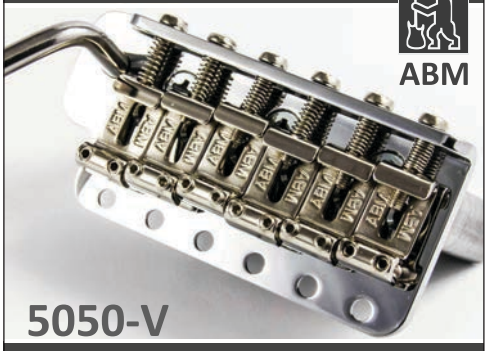
"A Rock Solid Setup Leads To A Rock Solid Performance"

Pedal-links™ are the adhesive & Velcro free effect pedal mounting system. Eliminate setup mistakes and save time at the gig. Setup once with *Pedal-links* and always be ready to go.

Just show up, plug in and play

PEDAL SUPPLIES BOARD
pedalboardsupplies.com

Modern Vintage
www.abm-guitarparts.com



5050-V

High-end tool with finest Twang, smooth action and perfect tuning stability. Two milled blocks included for classic tone or 80ties „Fat Strat" timbre. It´s up to you!

Tremolution
www.abm-guitarparts.com

EarthQuaker Devices

Available exclusively at The Guitar Store, Seattle, WA

THE GUITAR STORE

www.earthquakerdevices.com • www.seattleguitarstore.com

"I've gotten more compliments on my tone with the Baby Blues than since I started playing! I can't believe how good it sounds. I take it to a gig when I don't know what rig will be there and the Baby Blues always comes through with THE sound! The Baby Blues is just amazing!"

With an active tone section and a huge amount of clean or dirty boost, the Matador™ can be dialed in for just the right sound. "I tried the Matador out on a gig last night and it was awesome. Nice meaty tone and so much volume on tap it's scary! "

"Really great new take on that Vintage California Blackface sound! The extra mid control lets you dial it right in. The boost switch takes you right to vintage overdrive heaven. Everybody needs one of these!"

"Well, Light My Fire! The Brown Sugar just kills it! I think I just found a new box of tricks for my lead and crunch tones. This pedal is insane! Everything from full-on 70's lead tones to amazing squeal and sputter!"

Watch the video!

Rockbox ELECTRONICS

LEARN MORE AT WWW.ROCKBOX.COM • 408-279-9400

THE T-SHIRT CLUB FOR GUITARISTS

Get a new limited-edition t-shirt every month featuring an iconic guitar shop.

GUITARSHOPTEES.COM

A REASON TO CELEBRATE!

JOHN PEARSE®

50 YEARS of STRING DESIGN 1965 - 2015

GRETSCH®

INSTRUMENTS, LTD.

35th ANNIVERSARY 1980 - 2015

PRODUCTS DESIGNED BY & FOR MUSICIANS

PO BOX 295, CENTER VALLEY, PA 18034
610.691.3302 WWW.JPSTRINGS.COM

PG Apps

Get everything that's in the print magazine...and **more**.

premierguitar.com/apps

iPad | iPhone | Android

Available on the App Store

ANDROID APP ON Google play

iPad, iPhone, & iPod Touch are trademarks of Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple, Inc. Android is a trademark of Google Inc.

undeniable tone machines

From our vintage Rochester Series™, to our most state of the art EQs!

RED BOX
COMPRESSOR

Built by the same guys that invented the MXR Dyna Comp back in the 70s, the Red Box is a true classic and since its introduction in 1976 has been heard on countless landmark recordings.Known best for its crisp, percussive attack as well as its lush, rich sustain while maintaining the natural, clear tone of your guitar.

ORANGE BOX
PHASER

Built by the same guys that invented the MXR phase 90 back in the 70s, this hand-wired classic features select resistors paired with hand-matched components to achieve the same smooth and warm modulation as the original. . . the result? Gobs of thick, rich, swirling tone.

GOLD BOX
DISTORTION

Built by the same guys that invented the MXR Distortion Plus back in the 70s, this classic handwired tank of a box delivers a wide range of sonic distortion from a subtle, warm, tube-driven tone, to searing hot overdrive, with that vintage distortion, and classic tone you grew up with.

THE BOMB
AMERICAN BOOST!

This power house of a pedal couldn't be simpler, one knob dials your volume boost from 1 to 11, which takes you from a gentle increase in volume and gain for those subtle solos, all the way to eleven giving you as much boost as you can handle!

PERFECT TEN/BASS TEN
10 BAND GRAPHIC EQ

Our new EQs draw on years of equalizer experience to create a studio quality equalizer for live performance and recording. Its constant Q design make adjustment easy and intuitive. Constant Q means that each band's frequency width remains the same for small boosts as well as large boosts, giving you unparalleled control and sensitivity.

OC BASS • OPTICAL
COMPRESSOR / LIMITER

With three pre programmable attack speeds, you can switch from a super fast, thumping grab, to a long and lush compressed sustain, with plenty of adjustment in between. The OC BASS comes with adjustable input and outputs, so you can easily tailor the exact amount of punch and sustain you desire.

whirlwind FX LAB

MADE BY HAND, RIGHT HERE IN THE USA

1-800-733-9473 | 99 Ling Rd. Rochester, NY 14612 ▶ whirlwindusa.com

WANT HUGE TONE? WANT MIDWEST VALUE AND WORKING CLASS PRIDE? WANT TO LOOK GOOD AND SOUND GOOD AT THE SAME TIME? WANT TO BE AN INDIVIDUAL AND YET BE PART OF A COMMUNITY? SIOUX GUITARS BELIEVES IN STANDING APART. STANDING APART DOES NOT MEAN STANDING ALONE. BE YOU. ALWAYS BE RIGHTEOUS AND DO THE NEXT RIGHT THING.

WWW.SIOUXGUITARS.COM

"This Rumble Seat is... AWESOME! Send me three!" Joe Walsh

AnalogAlien.com

Rumble Seat

"The Gang's All Here!"

Rumble Drive - Delay - Reverb

Make your amp a BitMo Combobulated!

BitMo Mod Kits

"Go forth and modify."

Kits for guitars, amps, pedals and garage doors. bitmomusic.com & ebay

Thimble Slide™

Patent 8399753

A New Kind Of Guitar Slide

* Slide When You Want
* Fret When You Need!

Allows your fingertip to still press the strings. Play chords, slide a melody, run lines - all while wearing the slide.

Additional Designs Available!

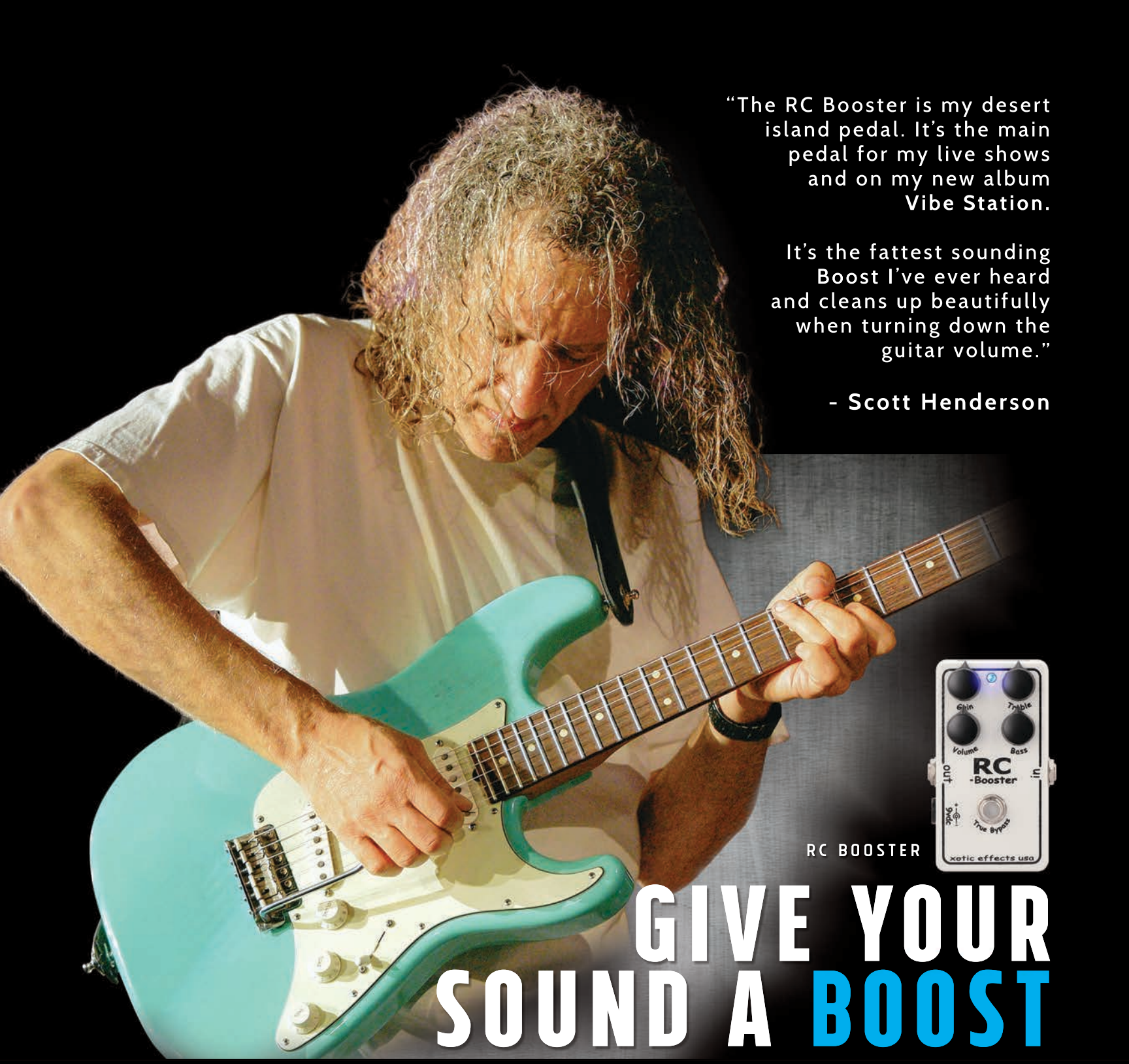
www.ThimbleSlide.com

Find your tone. Dialtone.

dialtonepickups.com

BE TRANSPARENT

SCREAMINFX.COM



"The RC Booster is my desert island pedal. It's the main pedal for my live shows and on my new album **Vibe Station**.

It's the fattest sounding Boost I've ever heard and cleans up beautifully when turning down the guitar volume."

- Scott Henderson

RC BOOSTER

GIVE YOUR SOUND A BOOST

VIBE STATION
by **Scott Henderson**

Available at cdbaby.com/cd/scotthenderson
Download on iTunes

Xotic Effects
CALIFORNIA

WWW.XOTIC.US

mtd
MADE BY HAND
PLAYED BY HAND
#musicbyhand

TELEFUNKEN
Elektroakustik
Black Diamond
Vacuum Tubes
Available Models:
ECC82-TK ECC83-TK
E88CC-TK GZ34-TK
EL84-TK EL34-TK
6L6GC-TK 6V6-TK
6550-TK KT88-TK
Visit the webstore
here:
Elektroakustik
ECC83-TK
WWW.T-FUNK.COM

TV Jones
GUITARS / PICKUPS
tvjones.com

SALES • SERVICE • STRINGS • PARTS • RESTORATIONS
Restorations by Jeff Babicz
GM1T
HEADLESS
USA
www.HeadlessUSA.com
Hotline: 203•395•8013
The world's largest Steinberger™ inventory.

Bright Fuzz
amptweaker

HIGH VOLTAGE HORSEPOWER
The Original Higher Gain CUDA
And Introducing
The All New Lower Gain CUDA Lite
Pure Class A Tube
200 Volts of B+ Power From 9VDC
Wide Range Tone Controls
Made in the USA
www.sibfx.com
'CUDA
'CUDA LT
SIB!

McCaffrey Audio

A SMOKIN' NEW LINEUP...

...TO REFLECT YOUR TONE

INTRODUCING OUR NEW PEDAL

RUN RABBIT RUN VIBE

AVAILABLE FALL 2015

www.mccaffreyaudio.com

RIO GRANDE PICKUPS
REAL STEEL
RIOGRANDEPICKUPS.COM

GET THE FANNED-FRET ADVANTAGE
See the videos at
novaxguitars.com
Sweet Annie
Sassy Annie
NOVAX®
FANNED-FRET 25 ANNIVERSARY INNOVATION

BADAXE™
BOUTIQUE
Nash | Grosh | Mike Lull | Roscoe | Warwick
Jackson | Fender Custom Shop | Gretsch
Dr. Z | Bogner | TopHat | Supro | Strymon
JHS | Empress Effects | Red Witch | Earthquaker
badaxeboutique.com

Great rooms begin with great acoustics!
Find out how to make any room sound great... visit
Primacoustic.com *now* for information you can use!
PRIMACOUSTIC®
www.primacoustic.com

F-PEDALS.COM
EDDIE KRAMER LINE
PULSE OF REBELLION SERIES

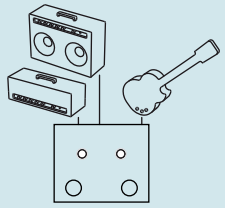
World Class Reverb
listen and learn at: **vanamps.com/demos**

HOW DO YOU DUAL?

Run two amps without tone loss

- Switches with gold-plated contacts
- Lehle LTHZ isolation transformer
- No ground loops, no hum or buzz
- Works perfectly with stereo signals

Little Dual - Big Sound!



Lehle

SIGNAL ROUTING SOLUTIONS. MADE IN GERMANY

www.lehle.com support@lehle.com

What's under your hood?

Imagine how your *Marshall*® would sound if you loaded it with substantially more IRON

We're building them *even better now* than they did in the '50s and '60s. The *FatStack*™ and *SuperStack*™ are *Mercury's* proprietary designs capable of delivering powerful and important improvements to your amp's *tone* (and reliability). **You get**: Extended bass frequency response, richer *tonal* dynamics, better punch-through and touch-sensitivity. **You get**: A cooler-running amp with superior power-regulation that'll deliver bigger, more open and consistent *tone*. **You lose**: *Tone*-drift while gaining *tone* stability and headroom. Did you know that your modern *Marshall* is missing the HUGE *tonal* benefits of a *choke*? A *choke* was part of the original *Marshall* magic! Yet most modern *Marshalls* don't have them. We have the remedy—our most popular *Marshall Upgrades* include either *FatStack* or *SuperStack transformer* sets along with a *choke*—an easy installation for any amp tech. It all adds up... no modern *Marshall* should be without *Mercury Upgrades*! For more information call your friends at *Mercury* today, or visit our website. Remember—where you get your *transformers* is where you get your *tone*!

The most significant Tone Upgrade for a modern Marshall you can make!

Mercury's sky-high stack literally towers over the stock *transformers*.

The Heart & Soul of Your Amp
Mercury MAGNETICS

www.MercuryMagnetics.com (818) **998-7791**

Copyright © 2011 by Mercury Magnetics. All Rights Reserved. All trademarks appearing in this ad are the property of their respective owners.

MEET THE MIGHTY MINNIE.

180 WATTS OF PURE AMP TONE…RIGHT ON YOUR PEDALBOARD!

The TGA-1 is an innovative, hybrid single channel guitar amp with the all tube hand wired TGA-3 clean channel pre-amp. This exclusive Tube Driver stage, with a special Jensen audio transformer controls an audiophile Class D power amplifier, retaining the real tube sound. This little amp has an amazing amount of power; 180 Watts into 4 ohms (modern 4x12 cab), 100 Watts into 8 ohms (single or 2 x 12 cab), or 60 watts into 16 ohms (vintage Marshall 4 x 12.) You get a full compliment of controls: Gain, Bass, Midrange, Treble, Master and a standby foot switch with status light. It's the first hybrid that really sounds like a tube amp. Visit us online today to learn more: www.demeteramps.com

Demeter
amplification
www.demeteramps.com

Because your pedalboard shouldn't cost more than your pedals...

BLACK BIRD
www.BlackbirdPedalboards.com

Subscribe to PREMIER Guitar today!

Every issue of *Premier Guitar* comes loaded with tons of juicy gear content including:

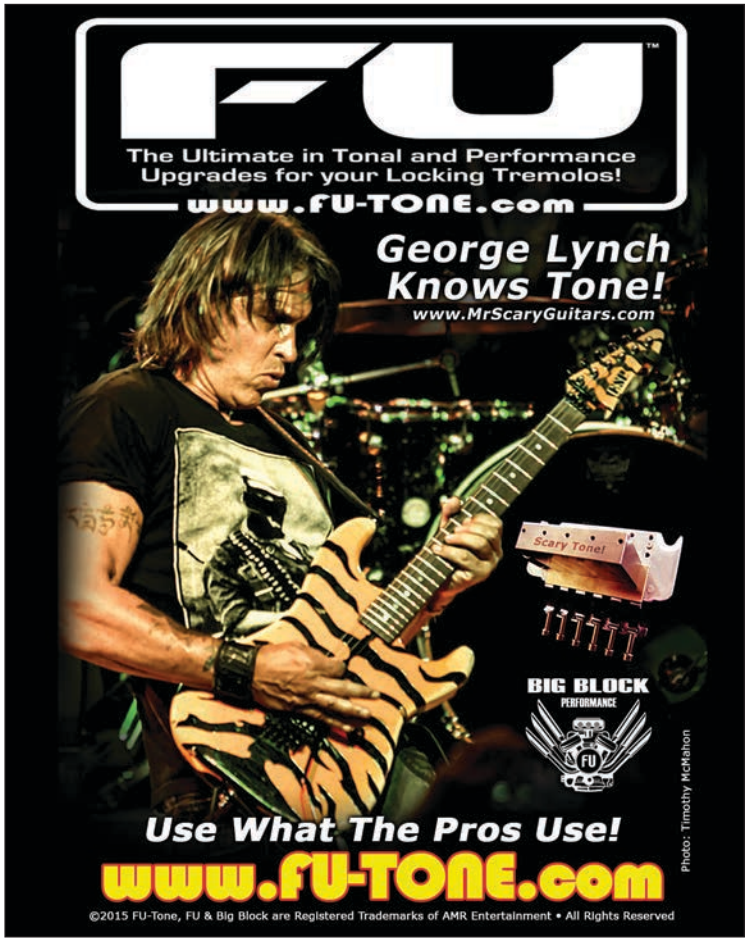
- The best gear reviews
- Gear mods and how-to tips from the pros
- Artist profiles and detailed info on their rigs
- Features on builders, designers, and luthiers
- **AND MORE!**

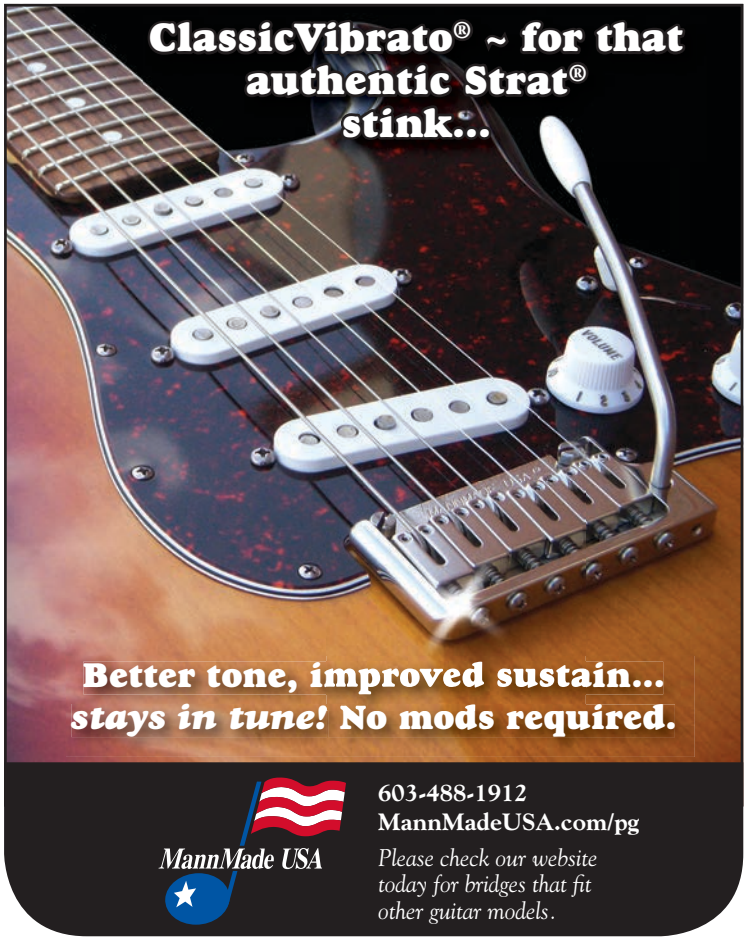
PLUS print subscribers get FREE access to the *PG* app!

SUBSCRIBE ONLINE TODAY &
SAVE 71% OFF NEWSSTAND!

SUBSCRIBE TODAY @ premierguitar.com/subscribe

Big Fatty
SI ToneBender Style Fuzz
Classy Lady
808 Style OD
Dirty Bastard
Dirty Germ Boost
Fresh Squeeze
Optical Comp
TRIBUTE
AUDIO DESIGNS
Tremor Tremolo
Kay Inspired Trem
Vocal Effect Integrator
Interface between Mic and Pedals
El Verbo
Reverb
TributeAudioDesigns.com
The classic tones you've always loved, only better.
@tributeaudio
tributeaudiodesigns
@tributeaudio


The Ultimate in Tonal and Performance Upgrades for your Locking Tremolos!
www.FU-TONE.com
George Lynch Knows Tone!
www.MrScaryGuitars.com
BIG BLOCK
PERFORMANCE
Use What The Pros Use!
www.FU-TONE.com
Photo: Timothy McMahon
©2015 FU-Tone, FU & Big Block are Registered Trademarks of AMR Entertainment • All Rights Reserved


ClassicVibrato® ~ for that authentic Strat® stink...
Better tone, improved sustain... stays in tune! No mods required.
MannMade USA
603-488-1912
MannMadeUSA.com/pg
Please check our website today for bridges that fit other guitar models.

HOW DOES YOURS HANG?
EASY TO INSTALL ★ CUSHIONED INSERT
★ ROTATES TO FIT ANY HEADSTOCK ★
GUITAR GRIP
Hand Made in Detroit
★ ORDER NOW
GUITARGRIP.COM

Guitarist Tall Tales: Reports, Rumors, and Rolling Thunder

BY JOL DANTZIG

"Tell you what, I'll give you $55 for both the blender and that 1951 Fen ... I mean, that funny old guitar."

As the story goes, our friend P.L. is lucky to be alive. His is a harrowing tale told with relish and flair. And I've heard the tale on several occasions—each time altered slightly to play to the listener. Our humble narrator was able to shade the words in such a way as to draw in his audience, and he craftily peppered the story with details gleaned from previous conversations that resonated with each of us.

As a pro bassist and instrument builder, P.L. was hardly the first prevaricator/storyteller/musician: He's just one of a long line of yarn-spinners. We've all heard stock stories that make the musicians' rounds. There's the story of the Vietnam casualty whose mint 1956 Stratocaster had languished in a closet in his childhood home, only to be discovered by a collector during a chance conversation with his parents. The purchase price? It was well below market value, but not an *insult*. They just wanted it to go to a good home where it could be appreciated.

Another favorite anecdote is about the band-demo disc (remember those?) that was passed along by a friend of a friend, only to be tossed into a record company executive's wastebasket and never heard. But instead of joining the towering pile of unsolicited demos in the trash, *this* one skips off the basket's rim and lands next to a bookshelf hidden from view. Inevitably, the mythical demo is found when the boss-man's ten-foot putt goes long, the disc is discovered, and curiosity leads him to play it then and there. The rest, of course, is platinum history.

There are plenty of others: the yard-sale Les Paul Junior snagged for $75, or the guy who traded in a '52 Tele *and* some cash for a new model in 1999. Then there's the story of an ounce of cocaine or a bag of weed hidden inside a pawnshop guitar purchase. I've heard about a duplicate shipment from Musician's Friend that yielded a matched brace of Jackson Soloists—twice.

I'll add my own favorite to the compendium of questionable fables. In the early 1970s, my vintage-guitar-store partner met an older woman whose deceased husband had been a guitar player. Naturally, he asked if she still had his instrument, and if it was for sale. She led him to a brown Lifton case. Inside was a dead-mint 1959 sunburst Les Paul. She refused to take more than $200 for it. Wait: You've heard that one before? Well, let me return to our friend P.L. and the one tale you probably haven't.

The scene in question was the large stage in Chicago's Aragon Ballroom, a grand hall able to hold 7,000 patrons, and this particular evening was incapable of holding a single soul more. In other words—sold out. Without fail, P.L. would begin his saga with "When I was in Chicago …" (It was always unclear whether this referenced the city or the band of the same name.) "We were headlining the Aragon as a freak thunderstorm rolled in," he'd continue. Through a clever flashback, we'd be informed that our hero had discovered—moments before going onstage—that his bass was suddenly in need of emergency fretwork. "It was most likely caused by a combination of the high humidity and rough handling from the stage crew," he surmised.

Luckily, a quick adjustment, fret dress, and a final polish with some four-aught steel wool set things right as rain. "There was no compressed air available," he intoned, "so I wiped up with a towel as best I could and ran onstage just as the lights went up." This remark struck a chord with me, as only days before this particular telling, we'd talked about how the insidious steel-wool fur was attracted to pickup magnets, and could only be thoroughly expelled with a strong, focused stream of air. Surely, I thought, some residue must have remained.

The storm outside matched the fervor of the audience as the band's set progressed. The massive lighting rig

occasionally flickered and crackling could be heard through the sound system. Still, the band and our brave bassist carried on in anger, as though their virtuosity and attitude could hold back the weather.

As the bass solo reached its crescendo, it seemed as though triumph was in hand when a thunderbolt touched the power lines and both the stage lights and amplifiers went dead. The static electricity from the discharge swept down the bass rig's cable to our friend's pickups, and ignited the steel wool with a brilliant, fiery flash that Ace Frehley would have approved of. The audience gasped as the flames leaped skyward. Luckily, our raconteur was insulated from certain death by his thick, rubber-soled boots.

After a moment of stunned silence, the power came back on as if by cue, and the room erupted with a standing ovation. The band finished their set to deafening applause, and as the patrons poured out into the streets, the rain had stopped and the sky was clear. The paying public was *surely* satisfied to have witnessed true rock 'n' roll magic.

Every now and then when I hear a new musician's yarn (or re-hear an old one), I hold my tongue and think of the night that the Chicago fire returned to entertain—over and over again.

JOL DANTZIG *is a noted designer, builder, and player who co-founded Hamer Guitars, one of the first boutique guitar brands, in 1973. Today, as the director of Dantzig Guitar Design, he continues to help define the art of custom guitar. To learn more, visit guitardesigner.com.*

DESKTOPDIRECT

Shown: Mark Five: 25™ Head in Fawn Slub Bronco & Gold Jute Grille

If you haven't heard, the MESA® MARK FIVE: 25™ is more than a great sounding, compact, twenty-five watt rendering of the most famous Boogie® MARK Amplifiers from the last 30 years... it's an inspirational ally and a musical SOLUTION!

It features our highly acclaimed CABCLONE™ Compensated Direct Out "Cabinet Simulator" with Closed-Back and Vintage voicing options, a great sounding AND feeling Impedance Load for either or both Silent Capture and a mic'd blend of preamp AND power section, an impressive Compensated Headphone Output, our infamous 5-Band Boogie Graphic EQ, lush tube Reverb, and 25 or 10 watt Channel Assignable Power.

From Desktop Direct silent recording, to a compact Fly-Date Partner for live performance, inspirational late-night Headphone Amp, to an awesome Gig-Rig for rehearsals and medium club venues, the MARK FIVE: 25 is a complete musical solution in a 16.5 pound mini-amp package that truly raises the bar.

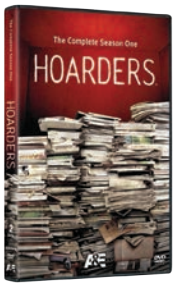
Visit your nearest MESA/Boogie® Dealer and discover the next generation of all-tube, portability, performance, flexibility and *TONE!*

MESA/Boogie® • 1317 Ross Street • Petaluma, CA 94954 • 707-778-6565 • mesaboogie.com

MESA ENGINEERING

Player, Collector, or Hoarder?

BY JOHN BOHLINGER



Recently I watched an episode of Lifetime's *Hoarders*. Never again. I felt like a creepy voyeur spying on mentally unstable people as they schlepped across worn carpet through narrow trails carved between floor-to-ceiling stacks of newspapers, boxes of shoes, broken appliances, and garage-sale baby clothes. After 25 minutes, I felt strangely claustrophobic, a little sad, and self-righteously smug.

The next day, I went into my garage and saw my pile of amps, separated into three stacks: (1) Working. (2) Dead but fixable. (3) Dead but not going anywhere—just in case. These amps are squeezed between stacks of road cases that spill over into one of the parking spaces. On the other side are a drum set and a small PA with its mains and wedges covering the second parking space.

Three paths separate these gear piles: one leads to the driveway where my '96 Mercury Grand Marquis has a Tele and amp waiting in its ample trunk. The other leads to a closet crammed full of guitars, speakers, tubes, strings, and pedals (one big box of broken pedals, one equally big box of working stomps I don't like). The third path leads inside my house where I have a studio full of gear and a bedroom lined with guitars. Occasionally my gear takes over the entire living room during late-night, buzz-fueled guitar/pedal/amp shootouts and experiments.

If somebody peered through the cracks in my blinds, I'd look like a mentally unstable hoarder. Which makes me wonder: Am I? I don't know, but I could definitely qualify for a *Hoarders: Gear Geek Episode*.

It's easy to get greedy when it comes to guitars. Since I was 15, I've spent tens of thousands of hours leafing through magazines and catalogs, searching the net and music stores, and watching hours of MTV and VH1 (back when they showed music videos)—all this just to see guitars. To this day there are huge holes in my education because I spent most of math and science class drawing designs of guitars on my notebook. It's like a porn addiction, only more embarrassing and harder for the straights to understand. Like a seemingly normal, suburban housewife who ends up turning tricks for crack, one has to wonder, how did this happen? The answer is: Slowly, then all at once.

First, you connect to music on a fundamental level. Then the specific sound of a guitar seduces you. Then you pick one up. If it feels really good in your hands, you've stepped onto the slippery slope. After that, just looking at guitars triggers a shot of endorphins. Before long you're trolling through dodgy gear sites late at night and going to music stores when you don't need anything.

It feels wrong to own a guitar that spends all its days in a case, slowly turning to dust.

I want to be like my friend Larry DiMarzio—he totally has the gear thing figured out. Where as I want to own every kind of guitar, L.D. owns just a few of the very best guitars ever made. Back in the day when Larry was working in New York making a name for himself as the secret tone weapon for the likes of Earl Slick, Al Di Meola, and Ace Frehley, he was living in a hotbed of still-affordable Holy Grail guitars. He bought a '59 Les Paul, then bought another one. Compared them and kept the one that sounded best. Then he did that again and again and again, until he had the quintessential Les Paul. He did the same thing with 335s, Teles, Strats, and Gibson J-45s, and wound up with the best example of each. To play Larry's old, battered J-45 acoustic is to know just what these are supposed to sound like at their absolute best, because this instrument won the Pepsi challenge every time.

Granted, following this method isn't feasible for us mere mortals. Start with the fact that L.D. has great ears and knows what to listen for. Also, he was in the right place at the right time—NYC in the early '70s. Finally, his tone quest was well funded by his company. All the money spent on these guitars was a research write-off because they provided the perfect baseline comparison for the pickups he was designing. I imagine Seymour Duncan has equally killer pieces (Jeff Beck's Esquire comes to mind). The point is, L.D. owns guitars with a purpose.

Ultimately, there are three types of guitar owners: the player, the collector, and the hoarder. I'm a player who needs to cover a lot of sonic ground for my work, so I rationalize having a lot of guitars. Although I love having guitars around, I don't want to be the guy that collects instruments I don't play. People built these things to be heard. It feels wrong to own a guitar that spends all its days in a case, slowly turning to dust. Stash enough of these under your bed and you'll feel a bit like a spoiled child who does not want to share his toys.

There's the rub: Today I feel the same way about guitars as I did when I was a teenager. The only difference is now I make more money, so I'm like a teenager with a divorced father's guilt-ridden credit card. I've got to grow up, reevaluate my gluttonous behavior, and make a distinction between my needs and wants. Specifically, I should fix or get rid of broken gear, jettison any guitar I haven't played in over a year, and quit buying gear I don't need. I probably won't do any of these.

This is a cautionary tale: *Save yourself while you can.* It's too late for me, but don't worry. I'll be okay, alone in my house with my gear.

JOHN BOHLINGER *is a Nashville musician who has led the band on NBC's* Nashville Star *and served as musical director of the* CMT Music Awards *for the last six years. In addition to his "Last Call" column, John recently joined* PG *as our full-time gear demo/Rig Rundown video dude.*

Premier Guitar ISSN 1945-077x (print) and ISSN 1945-0788 (online) is published monthly by Gearhead Communications, LLC. Principal office: 3 Research Center, Marion, IA 52302. Periodicals postage paid at Marion, IA 52302 and at Additional Mailing Offices. *© 2015 Gearhead Communications, LLC. All rights reserved. Reproduction in whole or in part without written permission is prohibited. Premier Guitar are registered trademarks of Gearhead Communications, LLC.* **Subscribers:** *If the Postal Service alerts us that your magazine is undeliverable, we have no further obligation unless we receive a corrected address. U.S. Subscriptions: $24.95 for one year. Call for Canada, Mexico and foreign subscription rates.* **Postmaster:** *Send address changes to Premier Guitar, 3 Research Center, Marion, IA 52302. Customer Service and subscriptions please call 877-704-4327 or email lois@premierguitar.com. Printed in USA. Volume 20 Issue 10 October 2015*

CRAZY HARD GUITAR TRIVIA

{ Powered By: Reverb }

1.

Which of these is not a Rickenbacker finish?

A. Burgundyglo
B. Mapleglo
C. Sunriseglo
D. Autumnglo

2.

Who is credited with developing the original PAF humbucker for Gibson in the '50s?

A. Ted McCarty
B. Roger Rossmeisl
C. Les Paul
D. Seth Lover

3.

Prior to the foundation of Kramer Guitars, Gary Kramer worked with which other guitar brand?

A. Fender
B. Charvel
C. Travis Bean
D. Jackson

4.

In 1964, Fender introduced dot inlays made of what material?

A. Pearloid
B. Maple
C. Clay
D. Bakelite

5.

The Gibson ES-330 uses which type of pickup?

A. P-90s
B. P-100s
C. PAF Humbuckers
D. P-40s

6.

The first batch of Alembic modified basses with active electronics were built out of...

A. Gibson EB-2s
B. Rickenbacker 4001s
C. Guild Starfire Basses
D. Fender Jazz Basses

Reverb

BUY & SELL NEW, USED, & VINTAGE GEAR

FIND MORE QUIZZES LIKE THIS AT REVERB.COM/QUIZZES

ANSWERS: 1. C 2. D 3. C 4. A 5. A 6. C

POWER TO THE PEOPLE.

Dunlop

jimdunlop.com